



625872199



Geotechnical
Environmental and
Water Resources
Engineering

RTN 3-23246

Immediate Response Action Status Report No. 5 and Remedial Monitoring Report No. 8

50 Tufts Street, Somerville, Massachusetts

Submitted to:
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887

Prepared by:
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781.721.4000

May 12, 2008
Project No. 04516-2

REF
354.353
GEI
RECEIVED

MAY 15 2008

DEP
NORTHEAST REGIONAL OFFICE

Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

Table of Contents

Executive Summary.....	viii
1. Introduction	1
1.1 Background	1
1.2 Contact Information	1
1.3 Purpose.....	2
1.4 Submittals	2
1.5 Public Involvement	2
2. Capuano Center IRA Activities	4
2.1 Introduction.....	4
2.2 Weekly Mechanical Inspections of the SSDS	4
2.3 Monthly SSDS Operations and Monitoring.....	5
2.3.1 Monthly Indoor and Outdoor Air Sampling and Laboratory Testing.....	6
2.3.2 Air Sampling: Checklist and Methods.....	6
2.3.3 Air Sampling: Duplicates.....	7
2.3.4 Meteorological Conditions.....	8
2.3.5 Air Testing	8
2.4 HVAC Negative Pressure Testing	8
2.5 SSDS Off-Gas VOC Monitoring	9
2.6 Permanent SSDS Design Evaluation	9
2.7 Remediation Waste Management	9
3. Residential and Commercial Properties IRA Activities	10
3.1 Introduction.....	10
3.2 Property Evaluation	10
3.3 Sub-Slab Soil Vapor Sampling	10
3.3.1 Soil Vapor Sampling – Checklists and Methods	11
3.4 Indoor Air Sampling	11
3.4.1 Indoor Air Sampling – Checklists and Methods.....	11
3.5 Indoor Air and Sub-Slab Soil Vapor Testing.....	11
3.6 Meteorological Conditions.....	12
3.7 60 Tufts Street Soil Vapor Connectivity and Extraction Test	12
3.8 Mitigation Measures	13
3.8.1 Temporary Measure - Air Purifiers.....	13

3.8.2	Permanent Exposure Pathway Elimination Measures	14
3.9	Remediation Waste Management	15
4.	50 Tufts Street IRA Activities	17
4.1	Introduction.....	17
4.2	SSDS and SVE Operation and Monitoring.....	17
4.2.1	Sub-Slab Depressurization System (SSDS).....	17
4.2.2	Soil Vapor Extraction (SVE) System	18
4.2.3	Off-Gas Treatment and VOC Mass Removal.....	19
4.3	Indoor and Outdoor Air Sampling	20
4.4	Flux Chamber Testing.....	20
4.5	Screening Evaluation of Soil Gas Volatilization and Transport.....	21
4.5.1	Screening for Potential Outdoor Sources of PCE	21
4.5.2	Tracer Gas Assessment	21
4.5.3	Results.....	21
4.6	Remediation Waste Management	22
5.	Subsurface Investigations	23
5.1	Previous Subsurface Investigations	23
5.1.1	Investigations Performed by Others.....	23
5.1.2	GEI Investigations (April through May 2006).....	23
5.1.3	GEI Investigations (January through March 2007)	23
5.1.4	Summary of Subsurface Investigations (April through September 2007)	24
5.1.5	Summary of Subsurface Investigations (October 2007 through March 2008)	25
5.2	Soil Boring and Monitoring Well Installation	25
5.3	Soil Sampling.....	25
5.3.1	Subsurface Soil Sampling.....	25
5.4	Subsurface Soil Vapor Sampling.....	26
5.4.1	Soil Vapor Sampling Methods.....	26
5.4.2	Meteorological Conditions.....	27
5.5	Rock Core and Soil Physical Characteristics.....	27
5.6	Groundwater Level Measurements	27
5.7	Groundwater Sampling	27
5.7.1	Groundwater Sampling: Methods	27
5.8	Hydraulic Conductivity Testing.....	28
5.9	Underground Utility Evaluation	28
5.10	Remediation Waste Management	29
6.	Planned Activities	30

6.1	Capuano Center.....	30
6.1.1	SSDS Operations Monitoring	30
6.1.2	Permanent System Upgrade.....	30
6.2	Residential and Commercial Properties.....	30
6.2.1	Ongoing Response Actions.....	30
6.3	50 Tufts Street.....	30
6.3.1	Indoor Air Testing.....	30
6.3.2	Operations Monitoring Plans	30
7.	Remedial Monitoring Report No. 8 [310 CMR 40.0027]	32
7.1	Operating Status of Active Remedial System [310 CMR 40.0027(2)(a)]	32
7.1.1	Capuano Early Childhood Center	32
7.1.2	Residences and Commercial Buildings	33
7.1.3	50 Tufts Street.....	33
7.2	Date and Number of Monitoring Events [310 CMR 40.0027(2)(b)].....	33
7.2.1	Capuano Early Childhood Center	33
7.2.2	Residences and Commercial Buildings	34
7.2.3	50 Tufts Street.....	34
7.3	Effluent Concentrations [310 CMR 40.0027(2)(c)].....	35
7.3.1	Capuano Early Childhood Center	35
7.3.2	Residences and Commercial Buildings	35
7.3.3	50 Tufts Street.....	35
7.4	Identification of Discharges Above Permissible Discharge Concentrations [310 CMR 40.0027(2)(d)].....	35
7.4.1	Capuano Early Childhood Center	36
7.4.2	Residences and Commercial Buildings	36
7.4.3	50 Tufts Street.....	36
7.5	Recovery Rates and/or Volumes [310 CMR 40.0027(2)(e)]	36
7.5.1	50 Tufts Street.....	36
7.6	Discharge Volumes [310 CMR 40.0027(2)(f)].....	37
7.6.1	50 Tufts Street.....	37
7.7	Date, Location, Type and Volume of Remedial Additives Applications [310 CMR 40.0027(2)(g)].....	37
7.8	Groundwater Data [310 CMR 40.0027(2)(h)]	37
7.9	Related Maps, Graphs or Diagrams [310 CMR 40.0027(2)(i)]	37

Tables

1-1	Summary of Immediate Response Action Submittals
2-1	Chemical Testing Results - Indoor Air Samples, Capuano Center
2-2	Chemical Testing Results - Outdoor Air Samples, Capuano Center

2-3	Summary of Meteorological Data During Air Sampling Events, Capuano Center
3-1	List of Properties within IRA Study Area
3-2a	Summary of Meteorological Data During Sub-Slab Sampling Events, October 1, 2007 - March 31, 2008, Residential and Commercial Properties
3-2b	Summary of Meteorological Data During Indoor Air Sampling Events, October 1, 2007 - March 31, 2008, Residential and Commercial Properties
3-3	Dates and Locations of Indoor Air Sampling, October 1, 2007 - March 31, 2008 Residential and Commercial Properties
3-4	Chemical Testing Results - Soil Vapor Samples, 60 Tufts Street
3-5	Summary of SSDS Effluent Testing Results 95R Franklin Street, Residential and Commercial Properties
3-6a – 3-67a	Chemical Testing Results - Sub-Slab Soil Vapor Sampling, Residential Properties
3-6b – 3-67b	Chemical Testing Results - Indoor Air Sampling, Residential Properties
3-16c	Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling, 95 Franklin Street
3-17c	Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling, 95R Franklin Street
3-38c	Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling, 31-33 Knowlton Street
3-46c	Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling, 12 Morton Street
3-49c	Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling, 18 Morton Street
3-56c	Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling, 23 Tufts Street
4-1	Sub-Slab Depressurization System (SSDS) Monitoring Results, 50 Tufts Street
4-2	Soil Vapor Extraction System (SVE) Monitoring Results, 50 Tufts Street
4-3	SSDS Influent and Effluent Sampling Results, 50 Tufts Street
4-4	Chemical Testing Results-Indoor and Outdoor Air Sampling, 50 Tufts Street
4-5	Summary of Meteorological Data During Air Sampling Events, October 1, 2007 - March 31, 2008, 50 Tufts Street
5-1	Soil Boring and Monitoring Well Summary
5-2	Chemical Testing Results - Groundwater Samples
5-3	Chemical Testing Results – Sub-Surface Soil Samples
5-4	Chemical Testing Results – Soil Vapor Samples
5-5	Summary of Drilling and Monitoring Well Installation Activities, October 1, 2007 - March 31, 2008
5-6	Summary of Soil Vapor Sampling at Monitoring Wells, October 1, 2007 - March 31, 2008

5-7	Summary of Quarterly Groundwater Sampling Activities, October 1, 2007 - March 31, 2008
5-8	Summary of Soil Physical Characteristics, 50 Tufts Street
5-9	Summary of Rock Core Physical Characteristics, 50 Tufts Street
5-10	Summary of Meteorological Data - Soil Vapor Sampling, October 1, 2007 - March 31, 2008
5-11	Monthly Groundwater Elevations, 50 Tufts Street
7-1	Summary of Monitoring Events November 1, 2007 – March 31, 2008, Capuano Center
7-2	PID Monitoring Data, Capuano Center
7-3	Influent VOC Mass Conversion Factors, 50 Tufts Street

Figures

1-1	Site Location Map
1-2	Site Area
2-1	Indoor and Outdoor Air Sampling Locations – Capuano Center
3-1	Study Area Progress
3-2	60 Tufts Street Soil Vapor Extraction Test Extraction Point and Monitoring Point Locations
4-1	Piping and Equipment Layout for Sub-Slab Depressurization System – 50 Tufts Street
4-2a	Soil Vapor Monitoring and Extraction Points (Northern Parking Lot and 60 Tufts Street)
4-2b	Soil Vapor Monitoring and Extraction Points (Southern Parking Lot)
4-3	50 Tufts Street Indoor Air Testing Results
5-1	Monitoring Well and Boring Locations
5-2	Boring Soil Sample Chemical Testing Results
5-3	Soil Vapor Testing Results
5-4	Shallow Wells Groundwater Chemical Testing Results
5-5	Till Wells Groundwater Chemical Testing Results
5-6	Bedrock Wells Groundwater Chemical Testing Results

Appendices

Appendix A	DEP Transmittal Forms BWSC-105, BWSC-105A, BWSC-105B and Transmittal Receipts
Appendix B	Capuano Center - Weekly Mechanical Inspection Logs
Appendix C	Capuano Center - Pre-Sampling Checklists for SSDS Monthly Monitoring
Appendix D	Capuano Center - Field Monitoring Forms for SSDS Monthly Monitoring
Appendix E	Capuano Center - Indoor Air Sampling Checklists and Photo Logs
Appendix F	Capuano Center - Indoor/Outdoor Sampling Laboratory Data Reports and Summa Canister Certifications
Appendix G	Capuano Center - Assessment and Air Monitoring Report - Environmental Health & Engineering
Appendix H	Residential Properties - Sub-Slab Soil Vapor Sampling Laboratory Data Reports and Summa Canister Certifications
Appendix I	Residential Properties - Sub-Slab Soil Vapor Sampling Checklists
Appendix J	Residential Properties - Indoor Air Sampling Laboratory Data Reports and Summa Canister Certifications
Appendix K	Residential Properties - Indoor Air Sampling Checklists and Photo Logs
Appendix L	Residential Properties - Soil Vapor Sampling Checklists
Appendix M	Residential Properties - 60 Tufts Street Soil Vapor Extraction Test Laboratory Data Reports
Appendix N	Disposal Documentation
Appendix O	50 Tufts Street - Weekly Field Monitoring Forms
Appendix P	50 Tufts Street - Indoor/Outdoor Air Sampling Checklists and Photo Logs
Appendix Q	50 Tufts Street - Indoor/Outdoor Sampling Laboratory Data Reports and Summa Canister Certifications
Appendix R	50 Tufts Street - Screening Evaluation of Soil Gas and Vapor Volatilization and Transport Report, EH&E, October 25, 2007
Appendix S	Subsurface Investigations - Boring and Monitoring Well Construction Logs
Appendix T	Subsurface Investigations - Subsurface Soil Sampling Laboratory Data Reports
Appendix U	Subsurface Investigations - Soil Vapor Sampling Laboratory Data Reports and Summa Canister Certifications
Appendix V	Subsurface Investigations - Soil Vapor Sampling Checklists
Appendix W	Subsurface Investigations - Groundwater Sampling Laboratory Data Reports
Appendix X	Capuano Center - VOC Graphs
Appendix Y	RadonAway XP/GP/XR Series Fan Installation Instructions
Appendix Z	50 Tufts Street - VOC Graphs

Acronyms

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AUL	Activity and Use Limitation
bgs	below ground surface
CEP	Critical Exposure Pathway
cfm	cubic feet per minute
cm/s	centimeters per second
CSA	Comprehensive Site Assessment
cy	cubic yard
DEP	Massachusetts Department of Environmental Protection
EH&E	Environmental Health and Engineering
EPA	United States Environmental Protection Agency
EPEM	Exposure Pathway Elimination Measure
GAC	granulated activated carbon
GPR	ground penetrating radar
HVAC	heating, venting, and air conditioning
IRA	Immediate Response Action
lbs/yr	pounds per year
MCP	Massachusetts Contingency Plan
mg/kg	milligrams per kilogram
MHz	megahertz
PCE	tetrachloroethene (perchloroethene)
PID	photoionization detector
ppbv	parts per billion by volume
ppm	parts per million
RAO	Response Action Outcome
RAO-P	partial Response Action Outcome
RMR	Remedial Monitoring Report
RL	reporting limit
RPD	relative percentage difference
RTN	Release Tracking Number
SSDS	sub-slab depressurization system
SVE	soil vapor extraction
TCE	trichloroethene
URF	unit risk factor
UVs	unit ventilators
VOCs	volatile organic compounds

Executive Summary

On behalf of UniFirst Corporation (UniFirst) of Wilmington, Massachusetts, GEI Consultants, Inc. (GEI) prepared this Immediate Response Action (IRA) Status Report No. 5 and Remedial Monitoring Report (RMR) No. 8 for the Site identified as 50 Tufts Street in Somerville, Massachusetts (Fig. 1-1). This IRA Status Report No. 5 and RMR No. 8 documents activities associated with the 50 Tufts Street Site from October 1, 2007 through March 31, 2008.

Based on the results of assessments conducted to date, the Site includes the 50 Tufts Street property (the Property), properties in the neighborhood to the east and west of the Property, and the Michael E. Capuano Early Childhood Center (Capuano Center; Fig. 1-2). The Property is approximately 51,111 square feet (sf) and developed with an approximate 20,594-sf, one-story, masonry block building. The majority of the building is warehouse space, and a small portion is office space.

Chlorinated volatile organic compounds (VOCs), particularly tetrachloroethene (also called perchloroethene [PCE]), have been measured in soil, groundwater, soil vapor, and indoor air at the Site.

For tracking and reporting purposes, all Massachusetts Department of Environmental Protection (DEP) Release Tracking Numbers (RTNs) for this Site have been consolidated under one number, RTN 3-23246. The IRA Plan associated with RTN 3-23246 was submitted to DEP on January 9, 2006. The Site is currently classified Tier IC (Permit No. W085813).

Response actions performed as part of the IRA from October 1, 2007 through March 31, 2008 include:

- Monitoring indoor air quality and conducting diagnostic testing of the sub-slab depressurization system (SSDS) at the Capuano Center.
- Evaluating indoor air quality and the potential for the migration of sub-slab vapor into the indoor air of residences and commercial buildings in the vicinity of the Property.
- Installing Exposure Pathway Elimination Measures (EPEMs) at two residential properties.
- Monitoring of the SSDS and soil vapor extraction (SVE) system at the Property and continuing to monitor indoor air quality in the building on the Property.

- Conducting Phase II Comprehensive Site Assessment (Phase II) and IRA subsurface investigations, including installation of one additional groundwater monitoring well (MW122); sampling and testing soil, groundwater and soil gas; measuring groundwater levels; and evaluating subsurface utilities.

During the reporting period of this IRA Status Report, DEP issued a new draft Unit Risk Factor for PCE, which is being used, in accordance with discussions with DEP, in risk characterization calculations associated with RTN 3-23246.

Capuano Center

As a result of indoor air testing for VOCs conducted in December 2006, GEI installed an SSDS in the south wing of the Capuano Center to control the migration of chlorinated VOC vapors from beneath the floor slab into indoor air. The SSDS was activated on February 1, 2007, and has been operating continuously since that time.

From October 1, 2007 through March 31, 2008, GEI continued to monitor the effectiveness of the mitigation measures at the Capuano Center by performing weekly mechanical inspections of the SSDS and monthly operation monitoring including indoor and outdoor air sampling. GEI also conducted additional response actions:

- A temporary adjustment of the heating, venting, and air conditioning systems in order to evaluate the performance of the SSDS with the building operating at a negative pressure with respect to the outdoors.
- Evaluation of water condensate in the SSDS extraction piping by conducting a video camera inspection and then using the SSDS vacuum blower to move water into the knock-out drum from which the water was then removed from the system.

Residential and Commercial Buildings

GEI continued its indoor air monitoring program and sampled 39 buildings during this reporting period. To date, GEI has recommended EPEMs for 29 buildings within the Site to mitigate the potential vapor intrusion exposure pathway from the subsurface to indoor air at these residential and commercial buildings.

Based on the competency of a building's slab floor, basement walls, and the vapor connectivity of the sub-slab materials, three different options for EPEMs have been identified:

- Option 1 is an SSDS, as described in IRA Status Report No. 4.
- Option 2 is a vapor barrier and venting system appropriate for buildings with a competent concrete slab.

- Option 3 is a vapor barrier and venting system appropriate for buildings without a competent concrete slab.

To date, GEI has overseen the installation of six Option 1 EPEMs, the conversion of an Option 1 EPEM to an Option 2 EPEM (95R Franklin Street), and one Option 3 EPEM (12 Morton Street). During the period covered by this IRA Status Report, EPEMs were installed at 95R Franklin Street and at 12 Morton Street.

In January 2008, a soil vapor connectivity and extraction test was conducted at 60 Tufts Street to evaluate EPEM options for this building.

50 Tufts Street

GEI has operated a SSDS beneath the building on the Property since April 30, 2007, and a SVE outside the building since August 22, 2007. Monitoring data collected during this IRA period indicate that the systems continue to meet their remedial objectives. A condition of no Imminent Hazard for full-time commercial occupancy has been achieved. The building at the Property is currently occupied by John's Auto Sales, a used car dealership.

Monitoring data collected for the SSDS show vacuum influence at the sub-slab monitoring points inside the building, which indicates that the system is capturing soil vapor beneath the slab, preventing its migration to indoor air. Similarly, monitoring data collected for the SVE shows vacuum influence up to 50 feet from the building in the south parking area, and up to 100 feet from the building in the north parking area extending onto the 60 Tufts Street property. Continuous operation of both systems has resulted in reduced VOCs in soil vapor indicating the removal of significant contaminant mass at the Property.

Concentrations of chlorinated VOCs detected in indoor air samples collected in October and December 2007 at the Property do not represent an Imminent Hazard for a 40-hour per week commercial worker inside the building. In addition, the testing results indicate decreasing concentrations with continued operation of the system. GEI will continue to monitor both systems.

Subsurface Investigations

The Phase II evaluation of the extent of subsurface contamination included the installation of one new overburden monitoring well (MW122) in January 2008. Selected soil samples collected from the boring were analyzed for physical properties and/or VOCs.

Quarterly groundwater and soil vapor sampling events were conducted in October 2007 and January 2008. Groundwater samples were submitted for laboratory analysis for VOCs and soil vapor samples were submitted for laboratory analysis of selected chlorinated VOCs.

Subsurface Phase II and IRA activities conducted between October 1, 2007 and March 31, 2008 include:

- Monthly groundwater level measurements.
- Installation of one overburden groundwater monitoring well (MW122).
- Quarterly groundwater sampling.
- Quarterly soil vapor sampling.
- Hydraulic conductivity testing.
- Underground utility evaluation.

Planned Activities

At the Capuano Center, GEI will continue to monitor the operation of the SSDS and conduct indoor air testing. We anticipate implementing the permanent design upgrades to the SSDS in the spring of 2008, and will provide an IRA Plan modification to DEP if the system will be significantly modified or altered.

At the residences and commercial properties, GEI will continue to collect indoor air samples to complete three rounds of testing over a one year period at the buildings in the study area where prior sub-slab soil vapor sampling and/or indoor air testing results have indicated that the indoor air quality does not pose a significant risk and does not represent a Critical Exposure Pathway (CEP). We will continue to conduct EPEMs at those residences and buildings where they are required and monitor those systems.

GEI may re-evaluate the need to conduct an EPEM, or an additional EPEM, at individual buildings based on DEP's re-assessment of the unit risk factor (URF) for PCE. In particular, this evaluation may affect residences where indoor air testing demonstrates a condition of No Significant Risk, but a CEP has not been eliminated.

At the Property, GEI will continue to sample indoor air approximately quarterly until August 2008. We will continue to monitor monthly the operation of the SSDS and SVE systems at the Property.

GEI will continue to collect groundwater and soil vapor samples at selected wells.

Remedial Monitoring Report No. 8

Remedial monitoring of the seven EPEMs at the Site was conducted during this reporting period. One of the six EPEMs with active fans, 95R Franklin Street, was converted to a passive venting system EPEM during the reporting period. One additional passive venting system EPEM was installed at 12 Morton Street and is now being monitored.

1. Introduction

On behalf of UniFirst Corporation (UniFirst) of Wilmington, Massachusetts, GEI Consultants, Inc. (GEI) prepared this Immediate Response Action (IRA) Status Report No. 5 and Remedial Monitoring Report (RMR) No. 8. The work discussed within this report was conducted as part of IRA activities for the Site identified as 50 Tufts Street in Somerville, Massachusetts (the Site; Fig. 1-1). Based on the results of assessments conducted to date, the Site includes the 50 Tufts Street property (the Property), properties in the neighborhoods east and immediately west of the Property, and the Michael E. Capuano Early Childhood Center (Capuano Center) located at 150 Glen Street (Fig. 1-2). The Property is approximately 51,111 square feet (sf) and developed with an approximate 20,594-sf, one-story, masonry block building. The majority of the building is warehouse space, and a small portion is office space.

1.1 Background

For tracking and reporting purposes, all Massachusetts Department of Environmental Protection (DEP) Release Tracking Numbers (RTNs) for this Site have been consolidated under one number, RTN 3-23246. The IRA Plan associated with RTN 3-23246 was submitted to DEP on January 9, 2006. The Site is currently classified Tier IC (Permit No. W085813).

Previous submittals by UniFirst that document IRA and other activities at the Site since January 2006 are summarized in Table 1-1. A detailed Site description and a summary of the history of releases and response actions conducted at the Site are documented in previously submitted reports.

1.2 Contact Information

Person Undertaking the IRA

John R. Badey
Vice President of Distribution and
Engineering
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887
978-658-8888

Licensed Site Professional

Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4012
LSP License No. 9719

1.3 Purpose

The purpose of this submittal is to provide a description and the results of IRA activities conducted from October 1, 2007 through March 31, 2008, including:

- Monitoring indoor air quality and conducting diagnostic testing for the evaluation of a permanent SSDS at the Capuano Center.
- Evaluating indoor air quality and the potential for the migration of sub-slab soil vapor into the indoor air of residences and commercial buildings in the vicinity of the Property.
- Installing EPEMs at the residential properties located at 95R Franklin Street and 12 Morton Street.
- Continuing to monitor indoor air quality in the building on the Property.
- Conducting Phase II and IRA subsurface investigations, including installation of one additional groundwater monitoring well (MW122); sampling and testing soil, groundwater and soil gas; measuring groundwater levels; and evaluating subsurface utilities.

RMR No. 8 is provided in Section 7.0 of this report.

1.4 Submittals

IRA Transmittal Forms (BWSC-105, BWSC-105A, and BWSC-105B) for RTN 3-23246 were submitted through eDEP (Transaction No. 174399) on May 12, 2008. Copies of the transmittal forms are provided in Appendix A.

1.5 Public Involvement

GEI provides key documents to the local public repositories associated with the Site, which are located at the Somerville Central Public Library and the City of Somerville Clerk's Office. GEI also provided electronic versions of the repository documents to the City for posting to its web site.

Based on conversations with DEP, GEI was not previously required to submit pre-sampling forms (BWSC-123) to the City when sampling on publicly owned property, or to submit results along with post-sampling forms (BWSC-124) to the City. However, as part of routine correspondence, GEI typically informed the City of our planned activities and chemical testing results associated with the Site. DEP has since clarified this issue in its Q&A dated November 2007, and GEI now provides the required forms and results to the City. Copies of these results letters were provided to DEP at the time they were mailed to the City.

Individual property owners have been provided copies of the laboratory testing results of samples collected on their properties along with the BWSC-123 Form. Copies of the results letters were provided to DEP at the time they were mailed to the property owners.

UniFirst anticipates continuing to hold periodic community meetings to inform City of Somerville officials, residents, and other stake holders about activities associated with the Site. The agendas, attendance lists, and presentations for the meetings will be provided to DEP in future submittals.

2. Capuano Center IRA Activities

2.1 Introduction

GEI evaluated indoor air at the Capuano Center in December 2006 by collecting indoor air samples for chlorinated VOCs testing. Based on the results of the indoor air testing, GEI and EH&E conducted response actions at the Capuano Center, including:

- Reducing the potential migration of sub-slab soil vapor to indoor air by sealing unintended air transfer pathways into the unit ventilators (UVs) in selected classrooms.
- Installing an SSDS in the south wing of the Capuano Center to control the migration of chlorinated VOC vapors from beneath the floor slab into indoor air. The SSDS was activated on February 1, 2007, and has been operating continuously since.
- Monitoring the effectiveness of the mitigation measures.

Detailed descriptions of the sampling efforts, testing results from December 2006 through September 2007, and a description of the design and installation of the SSDS were documented in IRA Status Report No. 4 (RTN 3-23246), submitted to DEP on November 9, 2007, and IRA Status Report No. 3 (DEP RTN 3-23246) and IRA Status Report No. 1 (DEP RTN 3-26114), submitted to DEP on May 15, 2007.

The following IRA activities were conducted at the Capuano Center from October 1, 2007 through March 31, 2008:

- Weekly mechanical inspections of the SSDS.
- Monthly operations monitoring including indoor and outdoor air sampling.
- Diagnostic testing of the SSDS.
- Video camera inspections of the SSDS extraction piping to evaluate the presence of water condensate.

2.2 Weekly Mechanical Inspections of the SSDS

GEI conducts weekly mechanical inspections of the SSDS at the Capuano Center. The mechanical inspections typically include:

- Confirming that the blower enclosure is secure.

- Checking for condensate accumulation and removing it from the system, if necessary.
- Collecting pressure measurements in the system manifold pipes, combined influent pipe, and effluent pipe using a manometer calibrated to 0.001 inches of water column.
- Collecting VOC measurements with a photoionization detector (PID; ppb-RAE) from the system manifold pipes, the combined influent pipe, and the effluent pipe.
- Deriving system flow rates from pressure differentials measured in the combined influent pipe using a thermo anemometer.

Weekly inspections were conducted on:

- October 5, 8, 14, and 26, 2007
- November 2, 9, 23, and 30, 2007
- December 7, 21, and 28, 2007
- January 4 and 18, 2008
- February 1, 15, 18, and 26, 2008
- March 7 and 14, 2008

Weekly Mechanical Inspection Logs are in Appendix B. Some of the weekly inspections were conducted concurrently with monthly operations and monitoring events (Section 2.3).

2.3 Monthly SSDS Operations and Monitoring

GEI conducted monthly monitoring of the SSDS in October, November, and December 2007 and January, February, and March 2008. Monthly monitoring typically consists of:

- Measuring VOC concentrations using a PID (ppb-RAE) at each sub-slab soil vapor monitoring point, extraction point, and at the combined influent and effluent pipes in the temporary blower enclosure.
- Measuring pressure using a manometer at each sub-slab soil vapor monitoring point, extraction point, and at the combined influent and effluent pipes in the temporary blower enclosure.
- Collecting indoor air samples from Classrooms 126, 138, 141, 142, and 146 and submitting the samples for laboratory analysis.
- Collecting an outdoor air sample on the Capuano Center roof, downwind of the SSDS exhaust pipe (due to variations in wind direction, the location of outdoor air sample collection varies).

Pre-Sampling Checklists, Field Monitoring Forms, and Air Sampling Checklists and Photo Logs are included in Appendices C, D, and E, respectively.

The average monthly flow rates from October 2007 through March 2008 ranged from 93 to 127 cubic feet per minute (cfm).

2.3.1 Monthly Indoor and Outdoor Air Sampling and Laboratory Testing

GEI collected monthly indoor air samples at the Capuano Center from October 2007 to March 2008 as part of SSDS operation monitoring.

Indoor and outdoor air samples were typically collected in 6-liter summa canisters over a 4-hour period. GEI submitted the samples to Accutest for VOC analysis by the United States Environmental Protection Agency (EPA) Method TO-15 with the following modified analytes list:

- | | |
|----------------------------|-----------------------------|
| ▪ Chloroethane | ▪ 1,1,1-Trichloroethane |
| ▪ Carbon Tetrachloride | ▪ 1,1,2,2-Tetrachloroethane |
| ▪ 1,1-Dichloroethane | ▪ 1,1,2-Trichloroethane |
| ▪ 1,1-Dichloroethene | ▪ Tetrachloroethene (PCE) |
| ▪ 1,2-Dichloroethane | ▪ Trichloroethene (TCE) |
| ▪ trans-1,2-Dichloroethene | ▪ Vinyl Chloride |
| ▪ cis-1,2-Dichloroethene | |

The locations of indoor air samples were approximately the same during each monthly sampling event and are shown in Figure 2-1. Indoor air samples were collected in Classrooms 126, 138, 141, 142, and 146. Outdoor air samples were collected on the roof downwind of the SSDS exhaust pipe. Results of indoor and outdoor air sampling are summarized in Tables 2-1 and 2-2, respectively. The laboratory data reports are in Appendix F.

2.3.2 Air Sampling: Checklist and Methods

Air samples were collected using polished, stainless-steel, evacuated canisters (summa canisters) and regulators provided by Accutest. Each canister was certified clean by Accutest, and copies of the certifications are in Appendix F.

Indoor Air Sampling Checklists were completed for each sample collected. Copies of the completed checklists are in Appendix E.

The regulator was attached to the canister at the location of the testing, and the pressure gauge reading was recorded. The canister was elevated so that the “candy cane” air inlet was approximately 3 to 5 feet above the floor, and the canister position was photographed. Copies of photographs are in Appendix E. The laboratory-set flow regulator was subsequently turned on and the time was recorded. The regulator was turned off after approximately 4 hours, and the time and final pressure gauge reading were recorded.

2.3.3 Air Sampling: Duplicates

A duplicate air sample was collected in Room 138 during each monthly indoor air sampling event at the Capuano Center. Each set of duplicate air samples was created by using a “T-splitter” and tubing attached to two canisters so that both canisters were drawing air from the same sample port.

The duplicate air samples (i.e., both canisters from each event) were submitted “blind” to Accutest for testing. The purpose of these duplicates is to evaluate the ability of the laboratory to accurately replicate testing results. The calculated relative percentage difference (RPD) between the duplicate samples for each sampling event between October 2007 and March 2008 was within the acceptable limit of 25 percent, except for the October 8, 2007 and February 19, 2008 samples.

The RPDs for the duplicate samples collected in Classroom 138 on October 8, 2007 and February 19, 2008 were not within the acceptable limit of 25 percent. The samples on October 8, 2007 and February 19, 2008 were collected with the heating, venting, and air conditioning (HVAC) system under positive pressure. At each sampling event, two duplicate samples were collected in Classroom 138. The sample and duplicate sample were collected using a stainless steel “T-splitter” attached to the two sample canisters so that both canisters were drawing air from the same sample port. The laboratory detected PCE at a concentration of 0.22 ppbv ($1.5 \mu\text{g}/\text{m}^3$) and 0.27 ppbv ($1.8 \mu\text{g}/\text{m}^3$) in the October and February duplicate samples, respectively; however, the laboratory did not detect PCE above the laboratory reporting limit in the non-duplicate samples collected on these dates.

According to the Region I, *EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses* (December 1996), the data reviewer can use professional judgment when evaluating field duplicates where one sample is a non-detect and the other sample is a positive detect at less than twice the reporting limit, given the increased variability that occurs close to the reporting limit (RL). Based on this guidance, the difference between the two samples reported above is attributed to increased method variability close to the RL, and no qualifiers were applied to the data.

2.3.4 Meteorological Conditions

During air sampling events at the Capuano Center, outdoor meteorological measurements were taken with a portable barometer and thermometer. The measurements were recorded on the Indoor Air Sampling Checklists (Appendix E) and are summarized in Table 2-3.

2.3.5 Air Testing

The air samples were submitted to Accutest for VOC analysis by EPA method TO-15 and reporting of the site specific list of compounds (Section 2.3.1). Indoor Air chemical testing results are summarized in Table 2-1. Outdoor Air chemical testing results are summarized in Table 2-2.

The monthly monitoring from October 2007 through March 2008 showed VOC concentrations were consistent with April through September 2007 VOC concentrations.

Prior to air sampling, qualitative measurements of VOC concentrations in indoor air were conducted with a PID and are documented on the sampling logs in Appendix E. Since the PID is calibrated to a 1-point (isobutylene), 10 ppm gas standard, PID results around 1 ppm or below were considered estimated. PID data for the SSDS were also considered approximate due to the sensitivity of the detector to humidity and temperature, and the likely presence of gases unrelated to the Site that may be detected by the PID.

2.4 HVAC Negative Pressure Testing

Between December 27, 2006 and January 4, 2007, EH&E conducted an assessment at the Capuano Center to evaluate soil vapor as a potential pathway for chlorinated VOCs to impact indoor air while the Capuano Center's HVAC system was operating in a negative pressure mode (i.e., the building interior is under negative pressure relative to the exterior of the building). EH&E's investigation included:

- Assessment of building performance and mechanical ventilation system operation.
- Environmental measurements.
- Assessment of potential air transfer pathways.

EH&E and GEI conducted additional evaluations of the effectiveness of the SSDS system while the HVAC system was operating in a negative pressure mode on October 14, 2007 and February 22, 2008. During both of these negative pressure tests, GEI collected six indoor air samples and conducted SSDS monthly monitoring. Following the completion of sampling, the HVAC system was adjusted back to its previous operating condition (positive pressure).

Indoor Air testing results are in Table 2-1. The laboratory data reports are in Appendix F. EH&E's report is provided in Appendix G.

2.5 SSDS Off-Gas VOC Monitoring

The regulatory requirements for off-gas treatment for remedial air emissions are in DEP's Policy No. WSC-94-150, "Off-Gas Treatment of Point-Source Remedial Air Emissions." Off-gas contaminant treatment is not required for SSDSs that produce a total air emission rate of volatile contaminants of less than 100 pounds per year (lbs/yr). Before installing the SSDS, we estimated that the system would produce significantly less than 100 lbs/yr of VOCs, and therefore, we did not install off-gas treatment processes. A description of the SSDS discharge estimate and post-EPEM installation sampling was presented in IRA Status Report No. 3.

GEI has continued to monitor the SSDS on approximately a weekly basis using a PID as a screening tool to track relative changes in system effluent. PID monitoring results for this monitoring period are noted on the mechanical inspection logs in Appendix B. Since the PID is calibrated to a 1-point, 10 ppm gas standard, PID results around 1 ppm or below were considered estimated. PID data for the SSDS were also considered approximate due to the sensitivity of the detector to humidity and temperature. The PID results, and the maximum system flow rate of 127 cfm measured during the recent monitoring period, indicate the estimated annual discharge rate for the SSDS – prorated from the recent monitoring period data – is approximately 7 lbs/yr.

GEI will continue to monitor the SSDS discharge with a PID to evaluate trends in sub-slab VOC concentrations and to confirm that off-gas treatment is not required.

2.6 Permanent SSDS Design Evaluation

GEI is currently evaluating potential design changes for the Capuano Center SSDS. As part of the permanent SSDS design evaluation, a video camera inspection of the extraction piping was conducted in February 2008. The purpose of the video camera inspection was to investigate water condensate that had accumulated in the piping. Based on the video inspection, the vacuum blower was used to pull some of the accumulated water into the knock-out drum. The water in the knock-out drum was then removed, screened with a PID and determined not to contain significantly elevated VOCs and discharged onto the ground surface adjacent to the extraction piping. SSDS design change details, if proposed, will be presented in a subsequent submittal to DEP.

2.7 Remediation Waste Management

No remediation waste was generated during IRA activities at the Capuano Center from October 1, 2007 through March 31, 2008.

3. Residential and Commercial Properties IRA Activities

3.1 Introduction

Based on groundwater, soil, and indoor air sampling results, GEI identified a several-block area near the Property for evaluation of soil vapor intrusion as a potential exposure pathway. The residential and commercial properties within the study area that were evaluated are listed in Table 3-1 and shown in Figure 3-1.

3.2 Property Evaluation

PCE was first detected off-Property in indoor air in seven homes along Tufts Street during at least one of the indoor air sampling events conducted by DEP and GEI in 2005 and 2006. The presence of PCE above laboratory reporting limits in the living space of an occupied residential dwelling constitutes a Critical Exposure Pathway (CEP).

GEI established a property evaluation process presented in IRA Plan Modification No. 1 (RTN 3-26114) dated April 12, 2007, to evaluate residential and commercial buildings and address exposure pathways. The evaluation process was further detailed in IRA Status Report No. 4, dated November 9, 2007.

To date, GEI has recommended EPEMs for 29 properties (Table 3-1), and continues to evaluate selected buildings within the Site that have a known or suspected complete vapor intrusion pathway from the subsurface to indoor air.

3.3 Sub-Slab Soil Vapor Sampling

GEI collected soil vapor samples at 56 buildings between February 28, 2007 and September 30, 2007. Details of the sampling conducted were provided in IRA Status Report Nos. 3 and 4. Figure 3-1 shows buildings where GEI conducted sub-slab soil vapor sampling. Soil vapor testing results are in Tables 3-6a through 3-67a.

Sub-slab soil vapor samples were collected from the existing sampling points at 60 Tufts Street on November 9, 2007. Results of sub-slab soil vapor testing are presented in Table 3-61a.

Soil vapor samples were also collected from the soil vapor sampling points installed at 60 Tufts Street in January 2008, as described in Section 3.7.

3.3.1 Soil Vapor Sampling – Checklists and Methods

Prior to sampling, GEI personnel purged the sample port with an air pump for several minutes. After purging was complete, the monitoring point was connected to a polished, 6-liter, stainless-steel summa canister, and regulator using Teflon tubing and stainless-steel compression fittings. Summa canisters and regulators were provided by Accutest. Each canister was certified clean by Accutest, and copies of the certifications, and laboratory data reports, are in Appendix H. The regulator was attached to the canister at the location of the testing, and the pressure gauge reading was recorded on a Sub-Slab Sampling Checklist. The laboratory-set flow regulator was then turned on, and the starting pressure and time recorded. The regulator was turned off after approximately 1 hour, and the final pressure and time were recorded. Copies of the Sub-Slab Soil Vapor Sampling Checklists are in Appendix I.

3.4 Indoor Air Sampling

GEI collected indoor air samples at 51 residential and commercial buildings between October 2006 and September 2007. Details of the sampling were provided in IRA Status Report Nos. 3 and 4.

Between October 2007 and March 2008, GEI collected indoor air samples from 39 residences and commercial buildings. Locations and dates for these sampling events are in Table 3-3. Figure 3-1 shows buildings where GEI conducted indoor air testing. Indoor air testing results are summarized in Tables 3-6b through 3-67b. The laboratory data reports are in Appendix J.

3.4.1 Indoor Air Sampling – Checklists and Methods

GEI collected indoor air samples from the basement and first floor of residences and commercial buildings over an approximately 4-hour period using summa canisters and regulators provided by Accutest. Each canister was certified clean by Accutest. Copies of the certifications are in Appendix J. Indoor Air Sampling Checklists were completed for each indoor air sample collected (Appendix K).

Flow regulators were attached to the summa canisters at the location of the testing. Canisters were placed so that the air inlet was approximately 3 to 5 feet above the floor. The laboratory-set flow regulator was then turned on, and the starting pressure and time recorded. The regulator was turned off after approximately 4 hours, and the final pressure and time were recorded. Photographs of canister position, taken prior to sampling, are in Appendix K.

3.5 Indoor Air and Sub-Slab Soil Vapor Testing

The soil vapor and indoor air samples were submitted to Accutest for laboratory analysis by EPA Method TO-15 and reporting of the site specific list of compounds (Section 2.3.1).

3.6 Meteorological Conditions

GEI typically measured outdoor meteorological conditions during each of the soil vapor and indoor air sampling events. GEI also typically measured indoor temperature and barometric pressure during indoor air sampling. Measurements were taken with a portable barometer and thermometer, and were recorded on the Indoor Air Sampling Checklists and Soil Vapor Sampling Checklists (Appendices K and L, respectively). Meteorological conditions are summarized in Tables 3-2a and 3-2b.

3.7 60 Tufts Street Soil Vapor Connectivity and Extraction Test

From January 15 through 21, 2008, GEI conducted a soil vapor extraction pilot test in the basement of the building at 60 Tufts Street. Soil gas was extracted from three temporary extraction points for 24 hours and soil gas pressure and VOC concentrations were monitored. Additional VOC sampling was conducted when the 24-hour extraction ended, and again 96 hours later. As part of the pilot test GEI also conducted a soil communication test to evaluate the vacuum radius of influence at various locations across the basement.

3.7.1 Sub-Slab Vapor Extraction Point Installation

GEI retained Norfolk Services, Inc. to install three sub-slab soil vapor extraction points (EP-1 through EP-3) and to provide vapor-phase carbon filtration and temporary blowers. The extraction points were located in the general garage area to the south, the storage hallway in the center, and the utility room to the north of the building (Fig. 3-2). Temporary extraction hose was connected from the extraction point to two 200-lb vapor-phase carbon drums operated in series, and a 6.5 horsepower shop vacuum that was used as a temporary blower to pull soil vapor from the extraction points through the carbon drums.

In addition to the extraction points, eight additional sub-slab soil vapor monitoring points (SS10 to SS17d) were installed at various locations in the basement to supplement the five existing points (Unit 4-SS1 to SS2, and Storage S-SS1 to SS3) that were installed in April 2007.

3.7.2 Operation and Monitoring

Before starting the approximately 24-hour extraction test, data were collected at seven sub-slab and soil vapor monitoring points (SVT-MW202S, SS10, SS13, SS14, SS16, Unit 4-SS1 and Storage S-SS2) to establish baseline soil vapor pressure and VOC concentrations. We used a digital manometer having a detection limit of 0.001-inch water, and a PID calibrated to 10 ppm isobutylene. After screening, we connected a summa canister to each monitoring point and collected soil vapor samples over a 1-hour period. Samples were submitted to Accutest for analysis by EPA Method TO-15 and reporting of the site specific list of

compounds (Section 2.3.1). Results of soil vapor sampling are summarized in Table 3-4. Laboratory data reports are in Appendix M.

The 24-hour extraction test was started on January 16 at 10:30 a.m. Vacuum pressure and VOCs were monitored in the extraction hose, between carbon tanks, and at the system discharge at 1, 4, and 24 hours. The extraction was stopped after 24 hours on January 17 at 10:30 a.m. and a round of soil vapor sampling was conducted. A final round of sampling was conducted 96 hours after extraction was stopped.

The mechanical equipment was disassembled and removed by Norfolk Services, and the extraction points were patched with cement. Since VOCs did not break through the lead carbon drums, the three polish drums did not receive any VOCs and were transported to a GEI storage facility. The three lead drums were transported to the blower enclosure at the Property to be incorporated into the next carbon change out (Section 4.2.3).

3.7.3 Results

The soil vapor extraction test indicated a vacuum radius of influence of less than 10 feet at EP-1, and approximately 25 feet at EP-2 and EP-3, during the maximum extraction rate. Four of the seven monitoring points sampled (SS13, SS14, SS16, and Storage S-SS2) were inside the vacuum radius of influence. A fifth point (SS10) was only a few feet outside the radius of influence.

Soil vapor sampling results indicate a decrease in VOCs immediately following the 24-hour extraction at five of the seven monitoring points. However, VOCs had returned to near pre-test levels 96 hours after extraction was stopped. The two points that did not show a decrease immediately after the extraction were outside the vacuum radius of influence. The data indicate that soil vapor extraction is a feasible method for reducing sub-slab VOCs.

3.8 Mitigation Measures

To date, GEI has recommended conducting EPEMs at 29 buildings. An SVE system was installed at the Property (Section 3.7). Prior to installing an EPEM, GEI installed air purifiers in residences and buildings as a temporary mitigation measure. Table 3-1 lists the buildings where EPEMs and air purifiers have been installed.

3.8.1 Temporary Measure - Air Purifiers

GEI installed five indoor air purifiers at the following residences and buildings between October 2007 and March 2008:

- 166-168 Glen Street, #2
- 162-164 Glen Street

- 13 Knowlton Street
- 17 Knowlton Street
- 49 Tufts Street

A list of properties with air purifiers installed by GEI is provided as Table 3-1.

3.8.2 Permanent Exposure Pathway Elimination Measures

To mitigate the vapor intrusion exposure pathway in residences and commercial buildings, GEI is conducting the installation of EPEMs. Based on the competency of a building's slab floor and basement walls, three different options for EPEMs have been identified.

Option 1, proposed in IRA Plan Modification No. 1 (dated April 12, 2007), is installation of an SSDS. Option 1 is applicable to buildings with a competent concrete slab floor, cast in place concrete walls, and good sub-slab air flow.

Option 2, proposed in IRA Plan Modification No. 10 dated December 17, 2007, consists of a vapor barrier and venting system, and sealing the concrete floor. It is appropriate for buildings with a competent concrete floor, a fieldstone or brick foundation, and poor sub-slab air flow. EPEMs in Option 2 would be tailored to the individual characteristics of each home.

Option 3 also consists of a vapor barrier and venting system for the walls and floor, but includes laying a new concrete slab. Option 3 is applicable to buildings with a poor quality concrete or dirt floor, a fieldstone or brick foundation, and poor sub-slab air flow. The details for Option 3 will be submitted to DEP under separate cover in another IRA Plan Modification.

EPEMs were installed at 95R Franklin Street (Option 2) and at 12 Morton Street (Option 3) during this status reporting period.

3.8.2.1 95R Franklin Street EPEM Installation

On May 30, 2007 an SSDS was installed in the basement and crawl space at 95R Franklin Street. Due to dense, fine-grained soil beneath the floor slab, indoor air testing completed on June 5, 2007 (Table 3-17b) showed the SSDS did not function optimally. A summary of the SSDS effluent testing is located in Table 3-5. Since the basement included a competent floor slab, an Option 2 EPEM was installed to replace the Option 1 EPEM. Installation of the Option 2 EPEM began on December 3, 2007 and was completed on January 4, 2008.

In December 2007, EH&E conducted a positive pressure test and a tracer gas test. The results of the tests were submitted to DEP by EH&E in a letter dated March 13, 2008.

On December 23, 2007 and December 28, 2007, confirmatory indoor air sampling was conducted. Results of the tests were reported to DEP on February 15, 2008. VOCs were not detected at concentrations above laboratory detection limits.

3.8.2.2 12 Morton Street EPEM Installation

An Option 3 EPEM was installed at 12 Morton Street between January 14 and March 4, 2008.

On March 7, 2008, EH&E conducted a positive pressure test at 12 Morton Street. The results of the test have not been received as of the date of this report. EH&E plans to conduct a tracer gas test at 12 Morton Street in the spring of 2008.

On March 5 and March 21, 2008, GEI collected confirmatory indoor air samples from the residence. The chemical testing results indicated that no VOCs were detected at concentrations above the laboratory detection limits.

3.8.2.3 95 Franklin Street

GEI has recommended a conversion of the current EPEM at 95 Franklin Street. GEI will initiate the conversion once access to the property is obtained.

3.9 Remediation Waste Management

GEI did not generate remediation waste during indoor air sampling and sub-slab soil vapor sampling. Sub-slab soil vapor sampling points were above the water table and did not require dewatering. Soil and cement cuttings from sub-slab soil vapor sampling point installation were minimal and used as backfill.

GEI disposed of concrete cores and soil cuttings generated during installation of SSDSs at the residences along with investigation derived waste that was generated as part of subsurface investigations at the Site. Spent carbon generated from air purifiers was disposed of with the carbon from the SVE/SSDSs located at the Property. Disposal documentation is in Appendix N.

3.9.1 95R Franklin Street Remediation Waste

During EPEM installation we excavated approximately 1.5 yards of concrete, and 4.5 yards of soil from the perimeter sub-slab trench. The concrete was disposed as construction debris. The soil was characterized as a U-listed hazardous waste. Excavated soil was temporarily stored in yard boxes in the back yard and was transported using 5-gallon buckets to a roll-off bin operated by TMC Services, Inc. on December 21, 2007. Disposal documentation is in Appendix N.

3.9.2 12 Morton Street Remediation Waste

During the EPEM installation approximately 13 yards of concrete were disposed of as construction debris by Trident Environmental Services Inc. at Worcester Sand and Gravel, Worcester, Massachusetts. Soil was characterized as non-hazardous waste and transported to American Reclamation Corporation in Charlton, Massachusetts by TMC Services Inc. on February 5, 2008. Disposal documentation is in Appendix N.

4. 50 Tufts Street IRA Activities

4.1 Introduction

GEI installed an SSDS at the Property to mitigate the soil vapor exposure pathway. The SSDS began operating on April 30, 2007. The SSDS includes 22 sub-slab extraction points inside the 50 Tufts Street building that are operated by a 15 horsepower blower with pressure gauges, controls, and a particulate filter (Fig. 4-1). The extracted soil vapor is filtered through two 2,000 lb tanks of granular activated carbon operated in series.

GEI also installed an SVE system on the Property to extract VOCs from soils in the vadose zone. The SVE began operating on August 22, 2007. The SVE system includes seven soil vapor extraction points installed through the pavement in the north and south parking lots that are connected to the same blower and off-gas treatment as the SSDS (Fig. 4-2a and 4-2b). System installation and operation details are reported in IRA Status Report No. 4 dated November 9, 2007.

Monitoring data collected for the SSDS show vacuum influence at all sub-slab monitoring points inside the building, which indicates that the system is capturing soil vapor beneath the slab, controlling potential migration to indoor air. Monitoring data collected for the SVE system show vacuum influence at all soil vapor monitoring points in the north parking lot and extending onto the 60 Tufts Street property. Vacuum influence in the south parking lot extends approximately 30 feet south of the building face.

4.2 SSDS and SVE Operation and Monitoring

4.2.1 Sub-Slab Depressurization System (SSDS)

Following startup, GEI monitored the SSDS in accordance with the Environmental Monitoring Plan presented in IRA Plan Modification No. 5, dated May 2, 2007.

From October 1 to December 31, 2007 monitoring was conducted weekly and generally included:

- Air pressure and total VOC concentration at each active SSDS extraction point.
- Sub-slab vapor pressure and VOC concentration at selected sub-slab monitoring points (SS3 through SS27).
- Air pressure and total VOC concentrations in each collection header.

- Air pressure and total VOC concentration in the combined influent and the discharge from the off-gas treatment system, and also between the lead and polish carbon units.

From January 1 to March 31, 2008 monitoring was conducted monthly and generally included (Fig. 4-1):

- Air pressure and total VOC concentration in each collection header.
- Air pressure and total VOC concentration in the combined influent and the discharge from the off-gas treatment system, and also between the lead and polish carbon units (i.e., lead tank effluent).

System monitoring data were recorded on Field Monitoring Forms, which are included in Appendix O. A summary of the monitoring results for the SSDS system from startup through March 31, 2008, is presented in Table 4-1.

4.2.2 Soil Vapor Extraction (SVE) System

Following startup, GEI monitored the SVE system in accordance with the Environmental Monitoring Plan presented in IRA Plan Modification No. 8, dated October 11, 2007. System monitoring data were recorded on Field Monitoring Forms, which are included in Appendix O.

From October 1 to December 31, 2007 monitoring was conducted weekly and generally included (Fig. 4-2a and 4-2b):

- Air pressure and total VOC concentration at each active SVE extraction point (SVE-1 through SVE-7).
- Soil vapor pressure and VOC concentrations at selected soil vapor monitoring points (SVT-MW201D, SVT-MW201S, SVT-MW202D, SVT-MW202S, SVT-1D through SVT-12D, and SVT-16D through SVT-23D).
- Air pressure and total VOC concentrations in each collection header.
- Air pressure and total VOC concentration in the combined influent and the discharge from the off-gas treatment system, and also between the lead and polish carbon units (i.e., lead tank effluent).

From January 1 to March 31, 2008 monitoring was conducted monthly and generally included:

- Air pressure and total VOC concentration in each collection header.

- Air pressure and total VOC concentration in the combined influent and the discharge from the off-gas treatment system, and also between the lead and polish carbon units (i.e., lead tank effluent).

A summary of the monitoring results for the SVE system from startup through March 31, 2008 is presented in Table 4-2. Pressure was measured with a Dwyer digital manometer, and VOC concentrations were measured using a PID calibrated to 100 ppm isobutylene. Monitoring results indicate a decrease in total influent VOC concentrations.

On January 24, 2008 GEI installed a flow switch and auto dialer that will automatically notify GEI if the system shuts down.

4.2.3 Off-Gas Treatment and VOC Mass Removal

Soil vapor from the SVE headers combines with the flow from the SSDS headers and is treated with two 2,000-lb vapor-phase activated carbon adsorbers operated in series (including a lead adsorber and a polish adsorber). A third, inactive adsorber is retained as a standby unit. The locations of the blower system and carbon adsorbers are shown in Figure 4-1.

When VOC measurements indicate significant breakthrough of the lead adsorber, that adsorber is taken offline and the former polish unit is moved to the lead position. The standby adsorber is then brought online as the new polish unit. A change out is scheduled when VOC monitoring indicates both the lead adsorber and the standby unit have broken through. Carbon change outs of 4,000 lbs each occurred on October 4, 2007, and March 13, 2008. The change outs consist of transferring the GAC from the two spent adsorbers to 55-gallon drums and refilling each adsorber with 2,000 lbs of virgin GAC. On March 13, 2008 the GAC was replaced with 3,400 lbs of virgin 4 mm pelletized activated carbon delivered by Carbon Filtration Services, Inc., and 600 lbs of partially used 4 millimeter pelletized activated carbon left over from the 60 Tufts Street pilot test on January 15-21, 2008. The drums of spent carbon are shipped off-site for disposal.

A sample of the system influent was collected on March 13, 2008 and submitted to Accutest for analysis for VOCs by EPA Method TO-15 and reporting of the site specific list of compounds (Section 2.3.1) (Table 4-3). The results of this sample and samples collected during the previous IRA status reporting period were compared with PID field measurements and used to estimate the total mass of VOCs removed from soil vapor by the system since April 30, 2007 (Section 7.5).

4.3 Indoor and Outdoor Air Sampling

GEI collected air samples inside and outside the building to evaluate air quality at the Property. Indoor and outdoor air samples that were collected between April 1 and September 30, 2007 were reported in IRA Status Report No. 4, dated November 9, 2007.

During this IRA status reporting period, GEI collected indoor and outdoor air samples on October 4 and December 7, 2007. On December 7, 2007, indoor air samples were collected following the installation and operation of the heating system in the building at the Property. Data collected during the sampling events, including environmental conditions, were recorded on Air Sampling Checklists included in Appendix P. Photos taken of the sample locations are in Appendix P. The samples were submitted to Accutest for laboratory analysis using EPA method TO-15 and reporting of the site specific list of compounds (Section 2.3.1). Chemical testing results are summarized in Table 4-4 and Figure 4-3. Meteorological data is summarized in Table 4-5. The laboratory data reports are in Appendix Q.

The indoor and outdoor air samples collected on October 4 and December 7, 2007 are considered representative of conditions during operation of the SSDS and SVE system. The concentration at each sampling location measured during each of these sampling dates was below the Imminent Hazard level for a Commercial Worker.

4.4 Flux Chamber Testing

In August 2007, EH&E conducted an investigation at the Property to identify potential entry routes for PCE into the building. Potential entry routes assessed as part of the investigation included transfer between the floor slab and wall interface and the transfer of air from within the block wall cavity.

To assess the floor wall interface, EH&E constructed individual flux chambers along the inside perimeter wall of the building. To assess the wall cavities, EH&E drilled small holes into the blocks from inside the building. Holes were drilled along the building perimeter at the locations where sampling chambers were installed and at other locations to assess potential point sources (in the vicinity of the original storage tank location and at pipe penetrations). Samples were collected from each wall cavity sample location using Dräger detector tubes for the determination of PCE levels.

According to Mr. Brian Baker of EH&E, there were no measurable detections in samples collected within any of the flux boxes or in the perimeter wall cavities. According to Mr. Baker, the investigation showed that the walls and the interface between the floor slab and the block wall were not significant sources of PCE impacting the interior space.

4.5 Screening Evaluation of Soil Gas Volatilization and Transport

In September and October 2007, EH&E conducted a soil gas evaluation and tracer gas test at the Property. Details of the study, including purpose, methodologies, and results were detailed in a Screening Evaluation of Soil Gas Vapor Volatilization and Transport report dated October 25, 2007 (Appendix R) and are summarized below.

4.5.1 Screening for Potential Outdoor Sources of PCE

In October 2007, EH&E completed a screening evaluation of the potential for PCE to volatilize from soil and to contribute to concentrations of PCE in indoor air of the building. The purpose of the evaluation was to assess the likelihood that off-gassing from the ground adjacent to the building has a significant impact on the concentration of VOCs measured in the indoor air of the building.

The evaluation included field measurements of PCE flux from the soil and the use of regulatory-approved air quality modeling systems. The data, along with soil vapor measurements previously made on the property by GEI, were used to estimate PCE levels in indoor air attributable to emissions from soil outside of the building.

4.5.2 Tracer Gas Assessment

In September and October 2007, EH&E conducted a tracer gas measurement study to evaluate outdoor air exchange rate and air migration through the building. Sulfur hexafluoride (SF₆), a non-flammable, non-toxic, non-naturally occurring gas, was used as the tracer gas in this study. Sulfur hexafluoride was released continuously for five days from inside the southwest corner of the building. The volume and flow rate of the tracer gas was designed so that the presence of the gas was easily detected and quantifiable by the test instruments. Tracer gas concentrations were monitored at several locations throughout the building with a Bruel & Kjaer Model 9652 Multi-point Multi-gas Analysis System.

4.5.3 Results

Based on the results of the soil gas screening and tracer test, EH&E concluded the following:

- Air within the building is reasonably well mixed and vapor phase compounds present in one area of the building will readily disperse to other areas based on the natural migration of air throughout the building.
- The overall air exchange rate measured within the building was consistent with typical air exchange rates for buildings not equipped with mechanical ventilation.
- Removal of identifiable PCE sources within the building and operation of the SSDS and SVE systems had eliminated potential pathways for PCE to migrate

into the building and had substantially reduced concentrations of PCE in indoor air.

- Volatilization of PCE from soil does not appear to have a significant influence on ambient and indoor air concentrations of PCE.
- The mitigation measures already undertaken at the Property should continue to be sufficient to prevent the migration of PCE and other VOCs from subsurface sources into the building.

A copy of the EH&E report is provided as Appendix R.

4.6 Remediation Waste Management

Remediation waste generated at the Property between October 1, 2007 and March 31, 2008 included 13,900 lbs of spent GAC from the carbon adsorbers.

Twenty 55-gallon drums of spent GAC were generated during each change out of two carbon adsorbers on October 5, 2007 and March 13, 2008. On October 11, 2007 and March 13, 2008 the spent carbon was transported off-site by New England Disposal Technologies, Inc. (NEDT) of Shrewsbury, Massachusetts, under a hazardous waste manifest. The spent carbon was delivered to Rineco of Benton, Arkansas, for use by cement kilns as a waste-derived fuel. Copies of hazardous waste manifests are in Appendix N.

5. Subsurface Investigations

5.1 Previous Subsurface Investigations

Since 2006, GEI has conducted multiple sub-surface investigations, including drilling and monitoring well installation, and soil, groundwater, and soil vapor sampling. Monitoring well locations are in Figure 5-1. Boring information and well construction details for previous subsurface investigations are in Table 5-1. Boring and monitoring well construction logs are in Appendix S. Results of previous groundwater, soil, and soil vapor chemical analyses are included in Tables 5-2 through 5-4.

5.1.1 Investigations Performed by Others

Subsurface investigations were originally conducted in 2002 by a former tenant at the Property as part of environmental due diligence. Ten soil borings (SH-1 through SH-5, SH-B1, SH-B2, and SH-MW1 through SH-MW3) and eight monitoring wells (SH-1 through SH-5, and SH-MW1 through SH-MW3) were installed; and soil and groundwater samples were collected for laboratory analyses of VOCs. In 2004, two soil borings (Soil Boring-1 and Soil Boring-2) and two wells (GEO-1 and GEO-2) were installed on the Property, and four wells (GEO-3 through GEO-6) were installed on the eastern side of Tufts Street. Groundwater was collected for laboratory analyses of VOCs. Available information regarding these subsurface investigations was presented in the Phase I Report dated June 16, 2006.

5.1.2 GEI Investigations (April through May 2006)

During April through May 2006, GEI performed subsurface investigations at the Site. One monitoring well (MW101) was installed on Tufts Street across from the northern end of the Property, two wells (MW102 and MW103) were installed on Morton Street, one well (MW104) was installed on the Property near the intersection of Washington and Tuft Streets, and one well (MW105) was installed on Cross Street near Alston Street. Soil samples were collected during advancement of the borings. Groundwater samples were collected for laboratory analysis for VOCs. Detailed information regarding this subsurface investigation was presented in the IRA Status Report No. 2 dated November 13, 2006.

5.1.3 GEI Investigations (January through March 2007)

During January through March 2007, GEI performed these additional subsurface investigations at the Site:

- Three wells (MW106, MW107, and MW108) were installed on Dell Street.

- One well (MW109) was installed on Tufts Street across from the southern end of the Property.
- Four wells (MW110, MW111, MW112, and MW112A) were installed on Knowlton Street.
- One well (MW113) was installed in the parking lot adjacent to the American Legion Post located at 163 Glen Street.
- Two wells (MW114 and MW115R) were installed on Alston Street.
- One well (MW116) was installed on the south side of the Capuano Center.

Soil samples were collected during advancement of the borings. Groundwater and soil vapor samples were collected for laboratory analysis of VOCs. Information regarding this subsurface investigation was presented in IRA Status Report Nos. 1 and 3, dated May 15, 2007.

Selected groundwater samples collected in January 2007 were tested for natural attenuation parameters including: alkalinity, arsenic, iron III, total organic carbon (TOC), nitrate, nitrite, sulfate, sulfide, chloride, methane, ethane, pH, oxidation/reduction potential (ORP), conductance, dissolved oxygen (DO), and VOC concentrations. Natural attenuation parameter testing results from January 2007 are discussed in a previous IRA Status Report.

5.1.4 Summary of Subsurface Investigations (April through September 2007)

During April through September 2007, GEI performed the following additional subsurface investigations at the Site:

- Four wells (MW119S, MW119T, MW120S, and MW120D) were installed at the Capuano School property.
- One well triplet (MW117S, MW117T, and MW117D) was installed on a vacant lot on New Washington Street.
- One well triplet (MW118S, MW118T, and MW118D) was installed on the Cobble Hill Apartment Property.
- An undocumented monitoring well (MW-CS-1) was discovered on Cross Street.
- A monitoring well (SH-MW1) at the Property that was screened across the overburden and bedrock contact was abandoned.
- A site-wide bedrock geophysical survey was conducted.
- Hydraulic conductivity testing was performed in eight monitoring wells (GEO-2, SH-MW3, MW109, MW111, MW112A, MW116, MW117D, and MW118D).

Soil and rock core samples were collected during advancement of the borings and were submitted for analysis of chemical and physical properties. Groundwater and soil vapor samples were collected for laboratory analysis of VOCs. Information regarding this subsurface investigation was presented in IRA Status Report No. 4, dated November 9, 2007.

5.1.5 Summary of Subsurface Investigations (October 2007 through March 2008)

Subsurface investigations conducted as part of IRA activities between October 1, 2007 and March 31, 2008 include:

- Soil boring and monitoring well installation
- Soil sampling
- Subsurface soil vapor sampling
- Groundwater level measurements
- Groundwater sampling
- Hydraulic conductivity testing
- Utility evaluation

5.2 Soil Boring and Monitoring Well Installation

Between October 5, 2007 and January 24, 2008, GEI observed Geosearch and GeoLogic Earth Exploration, Inc. of Norfolk, Massachusetts drill a total of three borings and complete them as groundwater monitoring wells. Two of the monitoring wells (MW121S and MW122) were screened in overburden, and one was screened in bedrock (MW121D). Monitoring well locations are shown in Figure 5-1. A summary of boring and monitoring well locations is in Table 5-1. A summary of boring and monitoring well installation activities is in Table 5-5. Boring logs and well installation reports are in Appendix S. The locations and elevations of the newly installed monitoring wells shown in Figure 5-1 were surveyed by BSC Group of Boston, Massachusetts in October 2007 and February 2008.

5.3 Soil Sampling

5.3.1 Subsurface Soil Sampling

During vacuum excavation activities in October 2007 and January 2008, GEI collected one soil sample from MW121D and one soil sample from MW122, each from a depth of approximately 2 to 3 feet using a hand auger. The soil samples were screened for VOCs in the field using a PID and the jar headspace method, and were submitted to Accutest for chemical analysis of VOCs.

GEI collected continuous soil samples during drive and wash drilling conducted from October 2007 through January 2008. GEI screened the samples in the field for VOCs using a PID and the DEP jar headspace method and submitted selected samples to Accutest for chemical analysis of VOCs.

The results of field screening are shown on boring logs in Appendix S. Soil testing results are summarized in Table 5-3 along with soil data from previous investigations. A summary of the testing results for PCE, TCE, and cis-1,2-dichloroethene, where detected, are shown in Figure 5-2. The laboratory data reports associated with the October 2007 through January 2008 soil testing are in Appendix T.

5.4 Subsurface Soil Vapor Sampling

Between October 2007 and January 2008, GEI observed Geosearch and GeoLogic install two groundwater monitoring wells that would also serve as subsurface soil vapor sampling points. Monitoring well construction was modified by increasing the length of the screen above the water table to allow for soil vapor infiltration. To prevent the infiltration of air into the well, Geosearch and GeoLogic sealed the annular space around the well with a thicker layer of hydrated bentonite chips than is typically used in monitoring well construction. GEI also equipped each monitoring well with a soil vapor sampling port and valve. The top of each monitoring well was sealed with a removable pipe cap and gasket, and the cap was not removed for 24 hours prior to soil vapor sampling. Monitoring well construction reports are in Appendix S.

Dates of subsurface soil vapor sampling events conducted during this status reporting period are in Table 5-7. Subsurface soil vapor testing results are summarized in Table 5-4 and shown in Figure 5-3. The laboratory data reports associated with October 2007 through January 2008 soil vapor testing are in Appendix U.

5.4.1 Soil Vapor Sampling Methods

Subsurface soil vapor samples were collected using 6-liter summa canisters and regulators provided by Accutest. Each canister was certified clean by Accutest, and copies of the certifications are in Appendix U.

The regulator was attached to the canister after it was brought to the sampling location, and the pressure gauge reading was recorded on a sampling checklist (Appendix V). The summa canister was connected to the soil vapor sampling port using a pressure fitting and Teflon tubing. The laboratory-set flow regulator was subsequently turned on and the time recorded. The regulator was turned off after 1 hour, and the time and final pressure gauge readings were recorded.

5.4.2 Meteorological Conditions

Meteorological conditions, including temperature, barometric pressure, prevailing wind direction, and general weather conditions, were recorded on the sampling checklists at the beginning and end of soil vapor sampling. A summary of meteorological conditions during subsurface soil vapor sampling events from October 2007 through March 2008 is in Table 5-9.

5.5 Rock Core and Soil Physical Characteristics

GEI submitted representative soil samples of the major strata (fill, silt, and till) from MW121D and MW122 to PTS Laboratories of Santa Fe Springs, California, for grain-size and dry bulk density analyses. GEI also submitted one rock core sample from MW121D for analysis of TOC, matrix porosity, and matrix density. The results of the soil and rock testing are summarized in Tables 5-10 and 5-11, respectively.

5.6 Groundwater Level Measurements

GEI measured site-wide groundwater levels in October 2007 and January 2008 and at selected locations monthly from October 2007 through March 2008. Groundwater level measurements are in Table 5-12.

5.7 Groundwater Sampling

GEI conducted quarterly site-wide groundwater sampling in October 2007 and January 2008, and at selected additional locations in January 2008. A summary of groundwater sampling activities, including dates of sampling, is in Table 5-8.

Groundwater testing results are summarized in Table 5-2 along with groundwater data from previous investigations. A summary of groundwater testing data is displayed in Figures 5-4 to 5-6. The laboratory data reports associated with the October 2007 through March 2008 groundwater testing are in Appendix W.

5.7.1 Groundwater Sampling: Methods

GEI collected groundwater samples from monitoring wells using low-flow sampling techniques. GEI collected groundwater samples with a Teflon bailer from monitoring wells where it was not possible to use low-flow techniques. These locations are identified in Table 5-8. Wells that did not have sufficient water for the collection of groundwater samples using either low-flow methods or Teflon bailers are noted in Table 5-8. Wells that were presumed destroyed, or where GEI personnel were otherwise unable to collect groundwater samples, are also listed in Table 5-8.

Groundwater samples were submitted to Accutest for chemical analysis of VOCs.

5.8 Hydraulic Conductivity Testing

During this monitoring period, GEI performed in-situ rising and falling head permeability tests. Rising-head slug tests were performed by inserting one or more plastic bailers into a well and then rapidly removing the slug of water from the well to create drawdown of the water level in the well. Rising head permeability testing was conducted on monitoring wells that had either partially saturated screens (a portion of the screen was above the water table) or saturated screens (the screen was entirely below the water table). Hydraulic conductivity values for rising head “slug tests” were calculated using the Bouwer and Rice Equation and “Super Slug” software.

Falling head slug tests were performed by inserting a solid plastic cylinder (slug) into a well, temporarily elevating the water level. The slug remained in the well for the duration of the falling head test. Falling head permeability testing was conducted only in monitoring wells that had fully saturated screens. Hydraulic conductivity values for falling head “slug tests” were calculated using the Hvorslev Equation and “Super Slug” software.

Rising-head slug tests were performed in the following groundwater monitoring wells:

- Wells screened in fill and/or silt: GEO-1, GEO-2, GEO-3, GEO-5, GEO-6, SH-MW3, MW101, MW102, MW109, MW111, MW112A, MW117S, MW118S, MW119S, MW121S, MW122, MW201, and MW202.
- Wells screened in deep overburden: MW117T, MW118T, MW119T.
- Wells screened in bedrock MW116 and MW120D.

GEI also conducted in-situ falling-head permeability tests in groundwater monitoring wells MW117T, MW118T, MW119T, MW116, and MW120D.

The results of the hydraulic conductivity testing will be presented in the Phase II report.

5.9 Underground Utility Evaluation

In March 2008, GEI initiated a utility investigation to evaluate whether VOC-impacted groundwater is infiltrating storm drains and/or sanitary sewers within the Site. The results of the underground utility evaluation will be presented in the Phase II report.

5.10 Remediation Waste Management

TMC transported investigation-derived waste generated between October 1, 2007 and March 31, 2008 to the General Chemical Corporation facility located at 133-138 Leland Street in Framingham, Massachusetts. Investigation derived waste consisted of either soil from drilling activities or groundwater from monitoring well development and sampling.

Copies of the bills of lading and hazardous waste manifests are in Appendix N.

6. Planned Activities

6.1 Capuano Center

6.1.1 *SSDS Operations Monitoring*

GEI will continue to monitor the operation of the SSDS; however, GEI anticipates modifying the monitoring program and will submit an IRA Plan Modification to DEP in spring 2008.

6.1.2 *Permanent System Upgrade*

GEI is working with the city of Somerville to evaluate a permanent system configuration for the SSDS. We anticipate completing SSDS modifications in 2008.

6.2 Residential and Commercial Properties

6.2.1 *Ongoing Response Actions*

GEI will continue to collect indoor air samples to complete three sampling rounds in one year in the buildings within the study area where prior sub-slab soil vapor sampling and/or indoor air testing results have indicated that the indoor air quality does not pose a significant risk at commercial buildings or does not represent a CEP at residences.

As appropriate, GEI will institute an EPEM at residences and buildings where such measures were initially recommended (five property owners have refused EPEMs). GEI will continue to monitor the buildings where an SSDS has been installed as an EPEM.

GEI recommends a conversion of the current EPEM at 95 Franklin Street. GEI will initiate the conversion once access to the property is obtained.

6.3 50 Tufts Street

6.3.1 *Indoor Air Testing*

GEI will conduct indoor air sampling at up to six locations on a quarterly basis until August 2008, and then will reevaluate the monitoring program. Samples will be collected using summa canisters and will be submitted for laboratory analysis by EPA method TO-15 and reporting of the site specific list of compounds (Section 2.3.1).

6.3.2 *Operations Monitoring Plans*

GEI will continue to monitor the operations of the SSDS and SVE. The SSDS and SVE use the same mechanical equipment and off-gas treatment. The monitoring program consists of

monthly monitoring, at a minimum, to confirm that system parameters such as flow rate, vacuum, and off-gas concentrations remain consistent, and to monitor for potential breakthrough of the carbon units.

The monitoring program currently includes measuring:

- Total VOC concentrations and vacuum pressure at each of the active SVE System extraction points and from the influent and effluent of the off-gas treatment system using a PID and manometer, respectively;
- Total VOC concentration in the influent and effluent from the carbon treatment system and between carbon canisters using a PID;
- System parameters such as flow rate, vacuum, and carbon usage rates; and
- Soil vapor pressure at selected soil vapor monitoring points using a manometer with a resolution of 0.001-inch water.

7. Remedial Monitoring Report No. 8 [310 CMR 40.0027]

This Remedial Monitoring Report (RMR) addresses Active Remedial Systems operated at the following properties:

- The SSDS installed in January 2007 at the Michael E. Capuano Early Childhood Center (Center) located at 150 Glen Street.
- SSDSs installed from May through October 2007 at the commercial property at 103 Washington Street, and at the residential properties at 23 Tufts Street, 31-33 Knowlton Street, 95 Franklin Street, 95R Franklin Street, and 18 Morton Street.
- The SSDS and an SVE system on the Property that began operating on April 30, 2007 and August 22, 2007, respectively. Because the SSDS and SVE are operated as one integrated system, using the same mechanical equipment and off-gas treatment, operating data for the two systems will be reported jointly in this section.

In November 2007, Irene Dale of DEP informed GEI that monthly RMRs for Active Remedial Systems associated with the Site were no longer required and that going forward RMRs should be submitted with IRA Status Reports for the Site.

RMR No. 8 covers the monitoring period from November 1, 2007 to March 31, 2008 and was prepared to meet the requirements of 310 CMR 40.0425(6). IRA Transmittal Forms BWSC-105, BWSC-105A, and BWSC-105B for RTN 3-23246 were submitted through eDEP (Transaction No. 174399) on May 12, 2008. Copies of the transmittal forms are in Appendix A.

7.1 Operating Status of Active Remedial System [310 CMR 40.0027(2)(a)]

7.1.1 Capuano Early Childhood Center

The Center SSDS was designed by GEI and installed by the T. Ford Company of Georgetown, Massachusetts, in January 2007. The system consists of pipes connected to a blower to draw vapors from beneath the building and discharge them through an exhaust pipe above the roof. All of the piping except the exhaust pipe is underground. Slotted pipes were installed beneath six classrooms along the southern side of the Capuano Center (Classrooms 122, 126, 134, 138, 142, and 146). The blower is located in a small enclosure on the southern side of the instruction wing. Six sub-slab soil gas monitoring points were installed

inside the bathrooms of Classrooms 122, 126, 133, 137, 142 and 146. The Capuano Center SSDS has operated without significant interruption during the monitoring period.

7.1.2 Residences and Commercial Buildings

The residential/commercial SSDSs were specified by GEI and installed between May and August 2007 by Storch Radon Services of Fall River, Massachusetts and Norfolk Services, Inc. of Bridgewater, Massachusetts. The systems consist of pipes connected to a blower to draw vapors from beneath the building and discharge them through an exhaust pipe above the roof. The residential/commercial systems' blowers are located on the exterior of the building to prevent draft effects.

SSDSs installed at 23 Tufts Street, 31-33 Knowlton Street, 95 Franklin Street, 18 Morton Street, and 103 Washington Street have operated without significant interruption during the monitoring period.

An SSDS operated at 95R Franklin Street between May 30, 2007 and December 13, 2007. The two fans were removed during installation of an Option 2 EPEM in December 2007 (Section 3.8). The building was not occupied by residents at the time of the removal of the fans and during the EPEM installation.

7.1.3 50 Tufts Street

Section 4.2 describes the operation and monitoring associated with the two Active Remedial Systems at the Property (SSDS and SVE). Both systems have been operating 24 hours per day with brief shut downs of several hours during the two carbon changes conducted during the monitoring period.

7.2 Date and Number of Monitoring Events [310 CMR 40.0027(2)(b)]

7.2.1 Capuano Early Childhood Center

7.2.1.1 Operations Monitoring

During the monitoring period, GEI conducted 28 monitoring events at the Capuano Center. The dates and types of monitoring events for the Capuano Center are in Table 7-1. Weekly system inspection logs for the Capuano Center are included in Appendix B. Total VOC concentrations measured at the Capuano Center from October 1, 2007 to March 31, 2008 are summarized in Tables 2-1 and 2-2 and graphs are presented in Appendix X.

7.2.1.2 Indoor Air Monitoring

Please refer to Section 2.4 for information about indoor air monitoring at the Capuano Center during the RMR period.

7.2.2 Residences and Commercial Buildings

7.2.2.1 Indoor Air and SSDS Monitoring

On January 29, 2008, DEP provided GEI with information that RadonAway fans (models GP201 and GP301), installed at a DEP disposal site in Ashland, Massachusetts, had experienced electrical problems caused by water condensation entering the electrical junction box. In an effort to prevent a similar problem from occurring at the Site, GEI supervised the installation of condensate bypasses at all residences with SSDSs using GP-series RadonAway fans (95 Franklin Street, 18 Morton Street, 23 Tufts Street, and 103 Washington Street). The fan modifications were complete in February 2008. A diagram showing the condensate bypass is presented in Appendix Y.

Post mitigation indoor air samples were collected at 95R Franklin Street, 31-33 Knowlton Street, 12 Morton Street, 18 Morton Street, and 23 Tufts Street. Results of testing are in Tables 3-17c, 3-38c, 3-46c, 3-49c, and 3-56c, respectively. Historic post-EPEM installation testing results for 95 Franklin Street are in Table 3-16c. In addition to air sampling and chemical testing, EH&E conducted tracer testing to demonstrate the effectiveness of the EPEM installed at 95R Franklin Street and a positive pressure test at 12 Morton Street. EH&E documented the results of its tracer test at 95R Franklin Street in a letter report dated February 14, 2008 that was submitted to DEP on February 15, 2008. The results of the positive pressure test at 12 Morton Street are not available as of the date of this report.

In early spring 2008, the resident at 31-33 Knowlton Street reported “gurgling” associated with the SSDS. GEI identified the cause of the sound as water interacting with the low point in the extraction piping. The water appears to have collected in the SSDS extraction sumps dug into the dense silt beneath the slab. GEI is evaluating options for addressing infiltration of water collecting in the sumps.

7.2.3 50 Tufts Street

7.2.3.1 Sub Slab Depressurization System

Regular monitoring was conducted on both the SSDS and SVE systems during the remedial monitoring period of November 1, 2007 to March 31, 2008. Monitoring details are provided in Section 4.2. Monitoring results for the SSDS from startup (April 30, 2007) through March 31, 2008 are in Table 4-1.

7.2.3.2 Soil Vapor Extraction System

Monitoring results for the SVE system from startup (August 22, 2007) through March 31, 2008 are in Table 4-2.

Field monitoring logs for November 1, 2007 to March 31, 2008 are in Appendix S, and graphs of the total VOC concentrations at the monitoring and extraction points are in Appendix Z.

7.2.3.3 Indoor and Outdoor Air Monitoring

Indoor and outdoor air samples were collected during the reporting remedial monitoring period on December 7, 2007 using summa canisters (Section 4.3). Samples were submitted to Accutest for analysis by EPA method TO-15 and reporting of the site specific list of compounds (Section 2.3.1). Chemical testing results of the December 7, 2007 sampling, along with previous testing results, are summarized in Table 4-5 and Figure 4-4. Air sampling checklists are in Appendix P.

7.3 Effluent Concentrations [310 CMR 40.0027(2)(c)]

7.3.1 Capuano Early Childhood Center

The Center's SSDS influent and effluent total VOC concentrations measured with a PID during the monitoring period are summarized in Table 7-2.

7.3.2 Residences and Commercial Buildings

Residential and commercial building effluent concentrations were not monitored during this reporting period.

7.3.3 50 Tufts Street

The Property's SSDS/SVE effluent total VOC concentrations measured with a PID during the monitoring period are summarized in Table 7-3.

7.4 Identification of Discharges Above Permissible Discharge Concentrations [310 CMR 40.0027(2)(d)]

The regulatory requirements for off-gas treatment for remedial air emissions are presented in DEP's Policy No. WSC-94-150, "Off-Gas Treatment of Point-Source Remedial Air Emissions." The DEP policy states that off-gas contaminant treatment is not required for SSDSs that produce a total air emission rate of volatile contaminants of less than 100 lbs/yr. GEI calculated the total VOC air emission rates for the mitigation systems, as described below. These calculations were presented in previous RMRs submitted to DEP.

7.4.1 Capuano Early Childhood Center

Based on previous effluent air chemical testing and measured air flow rate, it is our opinion that the total VOC air emission rate of the SSDS at the Center does not exceed the criteria of 100 lbs/yr and therefore, does not require off-gas treatment.

7.4.2 Residences and Commercial Buildings

Total VOC air emission rates were calculated at individual buildings, in accordance with procedures confirmed by DEP. The total VOC air emission rates of each individual SSDS installed at residences or at a commercial building do not exceed the criteria of 100 lbs/yr and; therefore, the SSDSs do not require off-gas treatment.

7.4.3 50 Tufts Street

Off-gas for both the SSDS and SVE system at the Property is vented through two tanks, each containing 2,000 lbs of GAC or pelletized activated carbon. The tanks operate in series with a lead tank receiving the untreated system influent, and a polish tank receiving the effluent from the primary tank. A change out of 4,000 lbs of GAC occurred on March 13, 2008 (Section 4.2.3). The waste was transported offsite under a hazardous waste manifest included in Appendix N.

Off-gas treatment is required for the SSDS/SVE system and it must remove 95% of the VOC mass present in the influent. Effluent testing by PID, the results of which are presented in Tables 4-1 and 4-2, indicate that the existing off-gas treatment system is removing greater than 95% of the VOC mass present in the influent air.

7.5 Recovery Rates and/or Volumes [310 CMR 40.0027(2)(e)]

There is no vapor, liquid or solid recovery associated with the operation of the Active Remedial Systems at the Capuano Center or the residential/commercial properties.

7.5.1 50 Tufts Street

The Active Remedial System at the Property recovers VOCs and some water vapor. The effluent VOC concentrations measured with a PID and air flow rates are presented in the monitoring logs in Appendix O.

To estimate the total mass of VOCs removed by the system since April 30, 2007, a series of equations were used to convert PID field measurements (in ppm) to mass (in lbs) using influent air laboratory chemical testing results. Table 7-3 summarizes the equations and conversion factors used to calculate the cumulative mass of VOCs removed. The cumulative mass of total VOCs removed through March 13, 2008 was approximately 3,770 lbs.

Based on the laboratory testing results of influent air stream sampling (Table 4-3), the combined influent consists of 94.0% PCE, 2.2% TCE, 2.7% 1,1,1-Trichloroethane, and <1.0% each of various other compounds. Considering one gallon of PCE weighs 13.47 lbs, and 1 gallon of TCE weighs 12.11 lbs, approximately 280 gallons of VOCs were removed by the system between April 30, 2007 and March 13, 2008. Approximately 100 gallons have been removed during the IRA status reporting period (October 1, 2007 to March 31, 2008).

7.6 Discharge Volumes [310 CMR 40.0027(2)(f)]

The volume of effluent discharged is not calculated as part of the operation of the Active Remedial Systems at the Capuano Center or the residential/commercial properties.

7.6.1 50 Tufts Street

The effluent VOC concentrations for the Active Remedial System at the Property are in Tables 4-1 and 4-2, and in the monitoring logs in Appendix O. Air flow rates are in Appendix O and Table 7-3.

7.7 Date, Location, Type and Volume of Remedial Additives Applications [310 CMR 40.0027(2)(g)]

No remedial additives have been applied as part of these Active Remedial Systems.

7.8 Groundwater Data [310 CMR 40.0027(2)(h)]

No groundwater data have been collected as part of these Active Remedial Systems.

7.9 Related Maps, Graphs or Diagrams [310 CMR 40.0027(2)(i)]

Related tables, maps, and inspection logs are referenced in Section 7.0 and are included in this report.



Geotechnical
Environmental and
Water Resources
Engineering



Table 1-1
Summary of Submittals (RTN: 3-23246)
50 Tufts Street
Somerville, Massachusetts

1. **Imminent Hazard Evaluation**, RTNs 3-23246 and 3-24358, 50 Tufts Street, Somerville, Massachusetts, dated January 9, 2009.
2. **IRA Plan**, 50 Tufts Street, Somerville, Massachusetts, RTNs 3-23246, 3-24358 and 3-24376, dated January 9, 2006.
3. **IRA Status Report No. 1**, 50 Tufts Street, Somerville, Massachusetts, RTNs 3-23246, 3-24358 and 3-24376, dated May 8, 2006.
4. **Phase I, Initial Site Investigation, and Tier Classification**, 50 Tufts Street, Somerville, Massachusetts, RTNs 3-23246, 3-24358 and 3-24376, dated June 16, 2006.
5. **Interim IRA Status Report and IRA Plan Modification**, 50 Tufts Street, Somerville, Massachusetts, RTNs 3-23246, 3-24358 and 3-24376, dated June 27, 2006.
6. **Imminent Hazard Retraction**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-26114, dated September 21, 2006.
7. **IRA Plan Modification No. 2**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-23246, dated September 21, 2006.
8. **IRA Plan**, RTN 3-26114, 50 Tufts Street, Somerville, Massachusetts, dated November 13, 2006.
9. **IRA Status Report No. 2 and Plan Modification No. 3**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-23246, dated November 13, 2006.
10. **IRA Plan Modification No. 4**, 50 Tufts Street, Somerville, Massachusetts, RTNs 3-23246 and 3-26114, dated February 22, 2007.
11. **IRA Plan**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-26114, dated April 9, 2007.
12. **IRA Plan Modification No. 1**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-26114, dated April 12, 2007.
13. **IRA Plan Modification No. 5**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-23246, dated May 5, 2007.
14. **IRA Status Report No. 3**, 50 Tufts Street, Somerville, Massachusetts, RTN 3-23246 & **IRA Status Report No. 1** RTN 3-26114, dated May 16, 2007.
15. **Phase II Scope of Work**, RTNs 3-23246 and 3-26114, 50 Tufts Street, Somerville, Massachusetts, dated May 18, 2007.
16. **IRA Plan Modification No. 6**, 50 Tufts Street, RTN 3-23246. Somerville, Massachusetts, dated July 5, 2007.
17. **Phase II Scope of Work Amendment**, RTNs 3-23246 and 3-26114, 50 Tufts Street, Somerville, Massachusetts, dated July 31, 2007.
18. **Remedial Monitoring Report No. 1**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated August 30, 2007.

Table 1-1
Summary of Submittals (RTN: 3-23246)
50 Tufts Street
Somerville, Massachusetts

19. **Monthly Remedial Monitoring Report No. 2**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated August 30 2007.
20. **Monthly Remedial Monitoring Report No. 3**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated August 30, 2007.
21. **Monthly Remedial Monitoring Report No. 4**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated August 30, 2007.
22. **IRA Plan Modification No. 7**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated October 11, 2007.
23. **IRA Plan Modification No. 8**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated October 11, 2007.
24. **Monthly Remedial Monitoring Report No. 5**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated October 19, 2007.
25. **Monthly Remedial Monitoring Report No. 6A**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated October 31, 2007.
26. **Monthly Remedial Monitoring Report No. 6B**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated November 8, 2007.
27. **Monthly Remedial Monitoring Report No. 7A**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated November 8, 2007.
28. **Monthly Remedial Monitoring Report No. 7B**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated November 8, 2007.
29. **IRA Plan Modification No. 9**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated November 9, 2007.
30. **IRA Status Report No. 4**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated November 9, 2007.
31. **IRA Plan Modification No. 10**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated December 17, 2007.
32. **Phase II Scope of Work Amendment No. 2**, RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated February 19, 2008.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units: Analyte Method		Cafetorium		Room 101				Room 108				Room 121		Room 122				Room 125			
		150 GLEN-CAF		150 GLEN-ROOM 101A		150 GLEN-ROOM 101B		150 GLEN-ROOM 108A		150 GLEN-ROOM 108B		150 GLEN-ROOM 121		150 GLEN-ROOM 122		150 GLEN-RM 122		150 GLEN-ROOM 125A		150 GLEN-ROOM 125B	
		1/6/2007		12/27/2006		12/28/2006		12/27/2006		12/28/2006		1/6/2007		1/6/2007		2/7/2007		12/27/2006		12/28/2006	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs) TO-15																					
Carbon tetrachloride		0.49 J S	0.078 J S	< 1.3	< 0.20	< 1.3	< 0.20	0.94 J	0.15 J	< 1.3	< 0.20	0.52 J S	0.082 J S	0.51 J	0.081 J S	0.69 J	0.11 J	1.0 J	0.16 J	< 1.3	< 0.20
Dichloroethane,1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		0.88 J S	0.13 J S	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane,1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 126																			
Sample Name:		150 GLEN-ROOM 126		150 GLEN-ROOM 100		150 GLEN-RM 126		150GLEN-ROOM 126		150 GLEN-ROOM 126		150 GLEN-RM 126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126	
Sample Date:		1/13/2007		1/13/2007		2/7/2007		3/8/2007		4/20/2007		5/17/2007		7/30/2007		9/10/2007		10/8/2007		10/14/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		0.69 J	0.11 J	0.63 J	0.10 J	0.94 J	0.15 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.60 J	0.095 J	0.69 J	0.11 J	0.82 J	0.13 J	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		0.88 J	0.13 J	0.75 J	0.11 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.0 J	0.15 J	< 1.4	< 0.20
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units: Method		Room 126 continued												Room 134				Room 136		Room 137	
		150GLEN-RM126 11/15/2007		150GLEN-RM126 12/13/2007		150GLEN-RM126 1/21/2008		150GLEN-RM126 2/19/2008		150GLEN-RM126 2/22/2008		150GLEN-RM126 3/172008		150 GLEN-ROOM 134 1/13/2007		150 GLEN-RM 134 2/7/2007		150 GLEN-ROOM 136 1/13/2007		150 GLEN-ROOM 137A 1/6/2007	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte																					
Volatile Organic Compounds (VOCs)	TO-15																				
Carbon tetrachloride		0.69 J	0.11 J	0.59 J	0.093 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	0.94 J	0.15 J	0.69 J	0.11 J	0.52 J S	0.082 J S
Dichloroethane,1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	3.2	0.47	< 1.4	< 0.20	2.1	0.31	< 1.4	< 0.20
Trichloroethane,1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	0.54 J	0.10 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		Room 137 continued		Room 138																	
		150 GLEN-ROOM 137B		RM138		150 GLEN-ROOM 138		150 GLEN-ROOM 138		150 GLEN-ROOM 138		150 GLEN-ROOM 138		150 GLEN-RM 138		150 GLEN-RM 139 (FD)		150GLEN-ROOM 138		150GLEN-ROOM 139	
		1/6/2007		1/2/2007		1/6/2007		1/13/2007		1/26/2007		1/26/2007		2/7/2007		2/7/2007		3/8/2007		3/8/2007	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.49 J S	0.078 J S	0.82 J	0.13 J	0.82 J	0.13 J	< 0.126	< 0.020	0.75 J	0.12 J	0.52 J	0.082 J	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane,1,1-		< 0.81	< 0.20	0.45 J	0.11 J	0.77 J S	0.19 J S	0.57 J	0.14 J	0.65 J	0.16 J	< 0.081	< 0.020	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-		< 0.79	< 0.20	< 0.79	< 0.20	2.1 S	0.54 S	< 0.79	< 0.20	< 0.79	< 0.20	< 0.079	< 0.020	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.079	< 0.020	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	0.83 S	0.21 S	< 0.79	< 0.20	< 0.79	< 0.20	< 0.0819	< 0.020	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	14	2	60 S	8.8 S	20	3	20	3	32.6	4.8	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.109	< 0.020	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	2.3	0.42	7 S	1.3 S	3.1	0.57	3.3	0.61	4.26	0.794	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 138 continued																			
Sample Name:		150 GLEN-ROOM 138		150GLEN-ROOM 139		150 GLEN-RM 138		150GLEN-ROOM 139		150GLEN-RM138		150GLEN-ROOM 139		150GLEN-RM138		150GLEN-ROOM 139		150GLEN-RM138		150GLEN-RM139 (FD)	
Sample Date:		4/20/2007		4/20/2007		5/17/2007		5/17/2007		7/30/2007		7/30/2007		9/10/2007		9/10/2007		10/8/2007		10/8/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.61 J	0.097 J	0.69 J	0.11 J	0.69 J	0.11 J	0.69 J	0.11 J	0.69 J	0.11 J	0.88 J	0.14 J
Dichloroethane,1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.2 J	0.17 J	1.1 J	0.16 J	< 1.4 J+	< 0.20 J+	6.5	0.96	< 1.4	< 0.20	1.5	0.22
Trichloroethane,1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1 J+	< 0.20 J+	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1 J+	< 0.20 J+	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 138 continued																			
Sample Name:		150GLEN-RM239 (FD)		150GLEN-RM238 (FD)		150GLEN-RM138		150GLEN-ROOM 139		150GLEN-RM238 (FD)		150GLEN-RM239 (FD)		150GLEN-RM138		150GLEN-RM139 (FD)		150GLEN-RM138		150GLEN-RM139 (FD)	
Sample Date:		10/8/2007		10/8/2007		10/14/2007		10/14/2007		10/14/2007		10/14/2007		11/15/2007		11/15/2007		12/13/2007		12/13/2007	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs) TO-15																					
Carbon tetrachloride		0.82 J	0.13 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.59 J	0.094 J	0.62 J	0.099 J	0.69 J	0.11 J	0.69 J	0.11 J	0.57 J	0.091 J	< 1.3	< 0.20
Dichloroethane, 1,1,-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1,-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane, 1,2,-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2,-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		1.2 J	0.18 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1,-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (T CE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 138 continued																Room 141			
Sample Name:		150GLEN-RM138		150GLEN-RM139 (FD)		150GLEN-RM138		150GLEN-RM139 (FD)		150GLEN-RM138		150GLEN-RM139 (FD)		150GLEN-RM138		150GLEN-RM139 (FD)		150 GLEN-ROOM 141		150GLEN-ROOM 141	
Sample Date:		1/21/2008		1/21/2008		2/19/2008		2/19/2008		2/22/2008		2/22/2008		3/17/2008		3/17/2008		1/6/2007		3/8/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.45 J S	0.071 J S	< 1.3	< 0.20
Dichloroethane, 1, 1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1, 1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane, 1, 2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.8	0.27	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1, 1, 1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 141 continued																	
Sample Name:		150 GLEN-ROOM 141		150 GLEN-RM 141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141	
Sample Date:		4/20/2007		5/17/2007		7/30/2007		9/10/2007		10/8/2007		10/14/2007		11/15/2007		12/13/2007		1/21/2008	
Units:		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³	
Method		ppbv		ppbv		ppbv		ppbv		ppbv		ppbv		ppbv		ppbv		ppbv	
Analyte	Method																		
Volatile Organic Compounds (VOCs)		TO-15																	
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3 J+	< 0.20 J+	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane,1,1,-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1,-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2,-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2,-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4 J+	< 0.20 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane,1,1,1,-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (T CE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units: Analyte		Room 141 continued				Room 142																
		150GLEN-RM141		150GLEN-RM141		RM142		150 GLEN-ROOM 142		150 GLEN-RM 142		150GLEN-ROOM 142		150 GLEN-ROOM 142		150 GLEN-RM 142		150GLEN-RM142		150GLEN-RM142		
		2/22/2008		3/17/2008		1/2/2007		1/6/2007		2/7/2007		3/8/2007		4/20/2007		5/17/2007		7/30/2007		9/10/2007		
Method		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	
Volatile Organic Compounds (VOCs)		TO-15																				
Carbon tetrachloride			0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	0.52 J S	0.083 J S	0.82 J	0.13 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.63 J	0.10 J	0.75 J	0.12 J
Dichloroethane,1,1-			< 0.81	< 0.20	< 0.81	< 0.20	1.4	0.35	1.2 S	0.29 S	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-			< 0.79	< 0.20	< 0.79	< 0.20	0.87	0.22	2.5 S	0.63 S	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-			< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	1	0.25	< 0.81	< 0.20
Dichloroethene, cis-1,2-			< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)			< 1.4	< 0.20	< 1.4	< 0.20	28	4.1	45 S	6.6 S	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane,1,1,1-			< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	0.33 J S	0.061 J S	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)			< 1.1	< 0.20	< 1.1	< 0.20	3.7	0.69	5.4 S	1 S	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		Room 142 continued																Room 144			
		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150 GLEN-ROOM 144		150 GLEN-ROOM 144	
		10/8/2007		10/14/2007		11/15/2007		12/13/2007		1/21/2008		2/19/2008		2/22/2008		3/17/2008		1/13/2007		1/13/2007	
Method		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	< 1.3	< 0.20	0.88 J	0.14 J	< 3.14	< 0.50
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 2.02	< 0.50
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 1.98	< 0.50
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 1.98	< 0.50
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 2.02	< 0.50
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	4.1	0.61	4.36	0.643
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 2.72	< 0.50
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	1.3	0.24	< 2.68	< 0.50

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		Room 145		Room 146																	
		150 GLEN-ROOM 145 1/6/2007		150 GLEN-ROOM 146A 12/27/2006		150 GLEN-ROOM 146B 12/28/2006		150 GLEN-ROOM 146B 12/28/2006		RM146 1/2/2007		150 GLEN-ROOM 146 1/6/2007		150 GLEN-RM 146 2/7/2007		150GLEN-ROOM 146 3/8/2007		150 GLEN-ROOM 146 4/20/2007		150 GLEN-RM 146 5/17/2007	
		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs) TO-15																					
Carbon tetrachloride		0.45 J S	0.071 J S	1.1 J	0.18 J	< 1.3	< 0.20	0.49 J	0.078 J	0.63 J	0.10 J	< 1.3	< 0.20	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane,1,1-		< 0.81	< 0.20	10	2.5	3.6	0.88	3.3	0.82	0.53 J	0.13 J	0.57 J S	0.14 J S	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-		< 0.79	< 0.20	7.9	2	4	1	3.9	0.99	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	3.3	0.83	1.3	0.33	1.2	0.31	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	186	27.5	83.4	12.3	85.4	12.6	11	1.6	26 S	3.8 S	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane,1,1,1-		< 1.1	< 0.20	2.1	0.38	0.82 J	0.15 J	0.71 J	0.13 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	37	6.8	10	1.9	11	2.1	1.7	0.32	3.0 S	0.56 S	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-1
Chemical Testing Results - Indoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 146 continued																	
Sample Name:		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146	
Sample Date:		7/30/2007		9/10/2007		10/8/2007		10/14/2007		11/15/2007		12/13/2007		1/21/2008		2/19/2008		2/22/2008	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																		
Volatile Organic Compounds (VOCs)		TO-15																	
Carbon tetrachloride		0.62 J	0.099 J	0.82 J	0.13 J	< 1.3	< 0.20	0.58 J	0.092 J	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.62 J	0.098 J
Dichloroethane,1,1-		< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene,1,1-		< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane,1,2-		< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		1.0 J	0.15 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane,1,1,1-		< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - (FD) = Field duplicate sample.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-2
Chemical Testing Results - Outdoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Outside of School by Room 126 Window						Outside of School by Day Care Window						Downwind on Roof							
Sample Name:		150 GLEN-0-1A		150 GLEN-0-1B		150 GLEN-0-1A		150 GLEN-0-2A		150 GLEN-0-2B		150 GLEN-0-2A		150 GLEN-ROOF B		150 GLEN-ROOF B		150GLEN-ROOF		150 GLEN-ROOF	
Sample Date:		12/27/2006		12/28/2006		1/6/2007		12/27/2006		12/28/2006		1/6/2007		2/8/2007		2/8/2007		3/8/2007		4/20/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)	TO-15																				
Acetone		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.52 J S	0.083 J S	1.1 J	0.17 J	< 1.3	< 0.20	0.52 J S	0.082 J S	< 1.3	< 1.3	< 0.20	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.81	< 0.20	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.81	< 0.20	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.79	< 0.20	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Methyl ethyl ketone		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.79	< 0.20	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 1.4	< 0.20	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 1.4	< 0.20	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrahydrofuran		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethane, 1,1,1-		< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 1.2	< 0.21	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 1.1	< 0.20	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - NT = Not Tested.
 - The sample collected on August 9, 2007 is part of the July monthly sampling round. It was not collected at the same time (7/13/07) as the indoor air samples for the sampling round because of access issues.

- Qualifying Notes:**
- B The target compound was present in the associated method blank.
- J The reported result is below the laboratory reporting limit and is estimated.
- S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-2
Chemical Testing Results - Outdoor Air Samples
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Downwind on Roof continued																		Blower Effluent	
Sample Name:		150 GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-EFFLUENT	
Sample Date:		5/17/2007		8/9/2007		9/10/2007		10/14/2007		11/14/2007		12/17/2007		1/21/2008		2/19/2008		3/17/2008		9/10/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Acetone		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	45.4 B	19.1 B
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane,1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	24	6.0 S
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	15	3.8 S
Methyl ethyl ketone		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	380 S	129 S
Dichloroethene,1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	10	2.6 S
Tetrachloroethane,1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	1.2 J	0.18 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	577 S	85.1 S
Tetrahydrofuran		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	571 S	194 S
Trichloroethane,1,1,1-		< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	4.9	0.72
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	98.3	18.3

- General Notes:**
1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. NT = Not Tested.
 6. The sample collected on August 9, 2007 is part of the July monthly sampling round. It was not collected at the same time (7/13/07) as the indoor air samples for the sampling round because of access issues.

- Qualifying Notes:**
- B The target compound was present in the associated method blank.
 - J The reported result is below the laboratory reporting limit and is estimated.
 - S The result is estimated due to Internal Standard recovery outside of the control limits.

Table 2-3
Summary of Meteorological Data During Air Sampling Events
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Date and Location:			Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to sampling?
			Start	End	Start	End	Start	End	Start	End	
10/8/2007											Yes
Room 126	55	60	29.96	29.90	NM	NM	Heavy Rain.	Overcast, Drizzle			
Room 138	55	60	29.96	29.90	NM	NM	Heavy Rain	Overcast, Drizzle			
Room 139 (duplicate)	55	60	29.96	29.90	NM	NM	Heavy Rain	Overcast, Drizzle			
Room 141	55	60	29.96	29.90	NM	NM	Heavy Rain	Overcast, Drizzle			
Room 142	55	60	29.96	29.90	NM	NM	Heavy Rain	Overcast, Drizzle			
Room 146	55	60	29.96	29.90	NM	NM	Heavy Rain	Overcast, Drizzle			
Room 238 (duplicate)	55	60	29.96	29.90	NM	NM	Heavy Rain	Overcast, Drizzle			
Room 239 (duplicate)			55	60	29.96	29.90	NM	NM	Overcast, Drizzle		
10/14/2007										No	
Roof	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 126	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 138	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 139 (duplicate)	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 141	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 142	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 146	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 238 (duplicate)	57.0	66.5	29.98	29.99	W	NM	Partly Cloudy, Windy	Partly Cloudy, Windy			
Room 239 (duplicate)			57.0	66.5	29.98	29.99	W	Partly Cloudy, Windy	Partly Cloudy, Windy		
11/14/2007										No	
Roof	60.9	54	29.94	29.86	W	N	Sunny	Sunny			
11/15/2007										Yes	
Room 126	61.7	44.7	29.92	29.97	W	Calm	Rain	Rain			
Room 138	61.7	44.7	29.92	29.97	W	Calm	Rain	Rain			
Room 139 (duplicate)	61.7	44.7	29.92	29.97	W	Calm	Rain	Rain			
Room 141	61.7	44.7	29.92	29.97	W	Calm	Rain	Rain			
Room 142	61.7	44.7	29.92	29.97	W	Calm	Rain	Rain			
Room 146	61.7	44.7	29.92	29.97	W	Calm	Rain	Rain			

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. Room 238 and Room 239 were additional duplicate samples taken in Room 138 during the October 2007 sampling events.
6. NM = Not Measured.

Table 2-3
Summary of Meteorological Data During Air Sampling Events
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Date and Location:		Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to sampling?
		Start	End	Start	End	Start	End	Start	End	
12/13/2007										
	Room 126	22.3	21	30.20	NM	NE	NM	Heavy Snow	Light Snow	Yes
	Room 138	22.3	21	30.20	NM	NE	NM	Heavy Snow	Light Snow	
	Room 139 (duplicate)	22.3	21	30.20	NM	NE	NM	Heavy Snow	Light Snow	
	Room 141	22.3	21	30.20	NM	NE	NM	Heavy Snow	Light Snow	
	Room 142	22.3	21	30.20	NM	NE	NM	Heavy Snow	Light Snow	
	Room 146	22.3	21	30.20	NM	NE	NM	Heavy Snow	Light Snow	
12/17/2007										
	Roof	31	26	29.77	29.94	E	NM	Sunny, windy	Clear	No
1/21/2008										
	Roof	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	No
	Room 126	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	
	Room 138	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	
	Room 139 (duplicate)	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	
	Room 141	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	
	Room 142	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	
	Room 146	20.0	25.7	30.55	30.49	N	W	Sunny, Windy	Sunny, Windy	
2/19/2008										
	Roof	43.7	48.0	29.63	29.55	W	W	Sunny, Windy	Sunny, Windy	No
	Room 126	43.7	50.7	29.63	29.56	W	W	Sunny, Windy	Sunny, Windy	
	Room 138	43.7	50.7	29.63	29.56	W	W	Sunny, Windy	Sunny, Windy	
	Room 139 (duplicate)	43.7	50.7	29.63	29.56	W	W	Sunny, Windy	Sunny, Windy	
	Room 141	43.7	50.7	29.63	29.56	W	W	Sunny, Windy	Sunny, Windy	
	Room 142	43.7	50.7	29.63	29.56	W	W	Sunny, Windy	Sunny, Windy	
	Room 146	43.7	50.7	29.63	29.56	W	W	Sunny, Windy	Sunny, Windy	

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. Room 238 and Room 239 were additional duplicate samples taken in Room 138 during the October 2007 sampling events.
6. NM = Not Measured.

Table 2-3
Summary of Meteorological Data During Air Sampling Events
Capuano Center
50 Tufts Street
Somerville, Massachusetts

Sample Date and Location:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to sampling?
	Start	End	Start	End	Start	End	Start	End	
2/22/2008									
Room 126	27.0	30.6	30.49	30.26	E	E	Snow	Snow	Yes
Room 138	27.0	30.6	30.49	30.26	E	E	Snow	Snow	
Room 139 (duplicate)	27.0	30.6	30.49	30.26	E	E	Snow	Snow	
Room 141	27.0	30.6	30.49	30.26	E	E	Snow	Snow	
Room 142	27.0	30.6	30.49	30.26	E	E	Snow	Snow	
Room 146	27.0	30.6	30.49	30.26	E	E	Snow	Snow	
3/17/2008									
Roof	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	No
Room 126	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	
Room 138	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	
Room 139 (duplicate)	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	
Room 141	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	
Room 142	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	
Room 146	32	46	30.28	30.26	NW	NW	Sunny, Windy	Sunny, Windy	

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. Room 238 and Room 239 were additional duplicate samples taken in Room 138 during the October 2007 sampling events.
6. NM = Not Measured.

Table 3-1

List of Properties within IRA Study Area

Residential and Commercial Properties

50 Tufts Street

Somerville, Massachusetts

Property:	Building Description:	Indoor Air Sampling Conducted:	Soil Vapor Sampling Conducted:	EPEM ² Recommended:	Air Purifier Installed:	EPEM ² Installed:
2 Alston Street	Multi-family Residential	No	No	No	No	No
6 Alston Street	Multi-family Residential	No	No	No	No	No
10 Alston Street ¹	Garage	No	No	No	No	No
12 Alston Street	Multi-family Residential	No	Yes	No	No	No
16-20 Alston Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
30-40 Alston Street	Commercial	Yes	Yes	No	No	No
142 Cross Street	Commercial	Yes	Yes	No	No	No
74 Franklin Street	Multi-family Residential	Yes	Yes	No	No	No
76 Franklin Street	Single-family Residential	Yes	Yes	No	No	No
80 Franklin Street	Multi-family Residential	Yes	Yes	No	No	No
82 Franklin Street	Single-family Residential	Yes	Yes	No	No	No
86 Franklin Street	Multi-family Residential	Yes	Yes	No	No	No
91-93 Franklin Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
95 Franklin Street	Single-family Residential	Yes	Yes	Yes	Yes	Yes
95R Franklin Street	Single-family Residential	Yes	Yes	Yes	Yes ^(R)	Yes
97 Franklin Street	Single-family Residential	Yes	Yes	No	No	No
97R Franklin Street	Single-family Residential	Yes	Yes	No	No	No
99 Franklin Street	Multi-family Residential	Yes	Yes	No	No	No
152-154 Glen Street	Multi-family Residential	Yes	Yes	No	No	No
153-155 Glen Street	Multi-family Residential	Yes	Yes	No	No	No
156 Glen Street	Multi-family Residential	Yes	Yes	No	No	No
159 Glen Street	Multi-family Residential	No	No	No	No	No
162-164 Glen Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
163 Glen Street	Commercial	Yes	Yes	No	No	No
166-168 Glen Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
2 Hadley Court #2a	Multi-family Residential	Yes	Yes	No	No	No
2 Hadley Court #2b	Multi-family Residential	Yes	Yes	No	No	No
2 Hadley Court #2c	Multi-family Residential	Yes	Yes	No	No	No
9 Knowlton Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
12-14 Knowlton Street	Multi-family Residential	Yes	Yes	No	No	No
13 Knowlton Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
17 Knowlton Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
19 Knowlton Street	Multi-family Residential	Yes	Yes	No	No	No
23 Knowlton Street	Multi-family Residential	Yes	Yes	No	No	No
27 Knowlton Street	Multi-family Residential	Yes	Yes	No	No	No
29 Knowlton Street	Multi-family Residential	Yes	Yes	No	No	No
31-33 Knowlton Street	Multi-family Residential	Yes	Yes	Yes	Yes ^(R)	Yes
32 Knowlton Street	Multi-family Residential	No	Yes	No	No	No
34 Knowlton Street ¹	Garage	No	No	No	No	No
35-37 Knowlton Street	Multi-family Residential	Yes	Yes	Yes	Yes	No

General Notes:

- 1 Property contains non-commercial garage only. There is no living space.
2. EPEM = Exposure Path Elimination Measure.
3. Air Purifier installation refused by property owner.
4. NA = Not Applicable.
5. (R) = Removed following EPEM installation.

Table 3-1

List of Properties within IRA Study Area

Residential and Commercial Properties

50 Tufts Street

Somerville, Massachusetts

Property:	Building Description:	Indoor Air Sampling Conducted:	Soil Vapor Sampling Conducted:	EPEM ² Recommended:	Air Purifier Installed:	EPEM ² Installed:
4 Morton Street	Multi-family Residential	No	Yes	Yes	Yes	No
6-8 Morton Street	Multi-family Residential	Yes	Yes	No	No	No
7 Morton Street	Multi-family Residential	Yes	Yes	No	No	No
10 Morton Street	Single-family Residential	Yes	Yes	Yes	No	No
11 Morton Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
12 Morton Street	Multi-family Residential	Yes	Yes	Yes	Yes ^(R)	Yes
13 Morton Street	Multi-family Residential	No	Yes	Yes	Yes	No
15-17 Morton Street	Multi-family Residential	Yes	Yes	No	No	No
18 Morton Street	Multi-family Residential	Yes	Yes	Yes	Yes ^(R)	Yes
19-19A Morton Street	Multi-family Residential	Yes	Yes	No	No	No
21 Morton Street	Multi-family Residential	Yes	Yes	No	No	No
9 Tufts Street	Multi-family Residential	Yes	No	Yes	Yes	No
11-13 Tufts Street	Multi-family Residential	Yes	No	Yes	Yes	No
17 Tufts Street	Multi-family Residential	Yes	No	Yes	Yes	No
19 Tufts Street	Multi-family Residential	Yes	No	Yes	No ³	No
23 Tufts Street	Multi-family Residential	Yes	No	Yes	Yes ^(R)	Yes
25 Tufts Street	Multi-family Residential	Yes	No	Yes	Yes	No
27 Tufts Street	Multi-family Residential	Yes	Yes	Yes	Yes	No
45-47 Tufts Street	Multi-family Residential	No	No	No	No	No
49 Tufts Street	Single-family Residential	Yes	Yes	Yes	Yes	No
51-51a Tufts Street	Multi-family Residential	No	No	No	No	No
53 Tufts Street	Multi-family Residential	Yes	Yes	No	No	No
60 Tufts Street	Multi-family Residential	No	Yes	Yes	NA	No
60 Tufts Street, #4	Multi-family Residential	Yes	Yes	Yes	Yes	No
60 Tufts Street, #10	Multi-family Residential	Yes	No	Yes	No	No
60 Tufts Street, #16	Multi-family Residential	Yes	No	Yes	NA	No
85 Washington Street	Commercial	Yes	Yes	No	No	No
91 Washington Street	Commercial	No	No	No	No	No
97 Washington Street	Commercial	Yes	Yes	No	No	No
103 Washington Street	Commercial	No	Yes	Yes	NA	Yes
105-107 Washington Street	Multi-family Residential	No	Yes	Yes	Yes	No
111 Washington Street	Multi-family Residential	No	Yes	Yes	Yes	No
113 Washington Street	Commercial	No	No	No	No	No
117 Washington Street	Multi-family Residential	No	No	No	No	No
121 Washington Street	Commercial	Yes	Yes	No	No	No

General Notes:

1. Property contains non-commercial garage only. There is no living space.
2. EPEM = Exposure Path Elimination Measure.
3. Air Purifier installation refused by property owner.
4. NA = Not Applicable.
5. (R) = Removed following EPEM installation.

Table 3-2a
Summary of Meteorological Data During Sub-Slab Sampling Events
Residential and Commercial Properties
50 Tufts Street
Somerville, Massachusetts

Sample Location:	Sample Date:	Associated Sample ID:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:	
			Start	End	Start	End	Start	End	Start	End
60 Tufts Street	11/9/2007	#4-SS1	43.6	42.2	30.18	30.17	Calm	Calm	Cloudy	Cloudy
60 Tufts Street	11/9/2007	#4-SS2	43.6	42.2	30.18	30.17	Calm	Calm	Cloudy	Cloudy

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.

Table 3-2b
Summary of Meteorological Data During Indoor Air Sampling Events
 Residential and Commercial Properties
 50 Tufts Street
 Somerville, Massachusetts

Sample Location:	Sample Date:	Sample ID:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Inside Temperature (°F):		Inside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to Sampling?
			Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
30-40 Alston Street	11/1/2007	FLAG	60.6	67.6	30.02	29.96	68.7	69.9	30.01	29.97	E	Calm	Partly Sunny	Overcast	No
30-40 Alston Street	11/1/2007	COST	60.6	67.6	30.02	29.96	70.1	73.7	30.01	29.97	E	Calm	Partly Sunny	Overcast	No
30-40 Alston Street	2/12/2008	FLAG	18.0	28.3	30.31	30.27	63.6	68.0	30.30	30.27	N	Calm	Sunny, Windy	Partly Cloudy	No
30-40 Alston Street	2/12/2008	COST	18.0	28.3	30.31	30.27	64.4	67.6	30.31	30.27	N	Calm	Sunny, Windy	Partly Cloudy	No
142 Cross Street	11/6/2007	1	50.0	45.1	29.76	29.76	55.0	54.6	29.68	29.76	Calm	Calm	Rain	Rain	Yes
142 Cross Street	11/6/2007	B	50.0	45.1	29.76	29.76	56.1	56.4	29.77	29.78	Calm	Calm	Rain	Rain	Yes
74 Franklin Street	2/7/2008	B	33	35	29.68	29.94	38	41	29.68	29.94	NW	NW	Rain and snow	Rain and Snow	Yes
74 Franklin Street	2/7/2008	1	33	35	29.68	29.94	68	71	29.68	29.94	NW	NW	Rain and snow	Rain and Snow	Yes
76 Franklin Street	11/5/2007	1	52.8	60.6	30.07	30.02	57.5	58.4	30.08	30.02	Calm	Calm	Sunny	Sunny	No
76 Franklin Street	11/5/2007	B	52.8	60.6	30.07	30.02	55.5	55.5	30.08	30.02	Calm	Calm	Sunny	Sunny	No
76 Franklin Street	2/11/2008	1	19.3	27.5	30.08	30.10	64.0	64.4	30.04	30.04	NM	NM	Sunny, Windy	Sunny, Windy	No
76 Franklin Street	2/11/2008	B	19.3	27.5	30.08	30.10	58.0	56.6	30.04	30.12	NM	NM	Sunny, Windy	Sunny, Windy	No
80 Franklin Street	1/31/2008	1	35	36	30.49	30.60	61	63	30.49	30.60	E	S	Sunny	Partly Cloudy	No
80 Franklin Street	1/31/2008	B	35	36	30.49	30.60	50	50	30.49	30.60	E	S	Sunny	Partly Cloudy	No
82 Franklin Street	11/29/2007	B	48.7	49.4	30.06	29.94	60.9	62.7	30.01	29.94	N	Calm	Cloudy	Partly Cloudy	No
82 Franklin Street	11/29/2007	1	48.7	49.4	30.06	29.94	65.8	67.6	30.00	29.94	N	Calm	Cloudy	Partly Cloudy	No
82 Franklin Street	3/6/2008	1	35	41	30.15	30.18	70	68	30.15	30.18	W	W	Sunny	Sunny	No
82 Franklin Street	3/6/2008	B	35	41	30.15	30.18	64	64	30.15	30.18	W	W	Sunny	Sunny	No
86 Franklin Street	11/12/2007	1	36.7	45.1	30.34	30.28	66.1	67.3	30.34	30.28	Calm	Calm	Partly Cloudy	Partly Cloudy	No
86 Franklin Street	11/12/2007	B	36.7	47.6	30.34	30.27	50.0	54.2	30.34	30.27	Calm	Calm	Partly Cloudy	Partly Cloudy	No
86 Franklin Street	2/4/2008	1	35	42	30.41	30.42	65	68	30.41	30.41	Calm	Calm	Cloudy	Partly Cloudy	No
86 Franklin Street	2/4/2008	B	35	NM	30.41	30.42	50	54	30.41	30.41	Calm	Calm	Cloudy	Partly Cloudy	No

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. NM = Not Measured.

Table 3-2b

Summary of Meteorological Data During Indoor Air Sampling Events

Residential and Commercial Properties

50 Tufts Street

Somerville, Massachusetts

Sample Location:	Sample Date:	Sample ID:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Inside Temperature (°F):		Inside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to Sampling?
			Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
95R Franklin Street	11/15/2007	1	60.4	61.3	29.6	29.4	60.8	61.0	29.5	29.4	N	N	Partly Cloudy, Breezy	Cloudy, Windy	No
95R Franklin Street	11/15/2007	B	60.4	60.9	29.6	29.4	59.8	60.1	29.6	29.4	N	N	Partly Cloudy, Breezy	Cloudy, Windy	No
95R Franklin Street	12/23/2007	1A	62.3	61.3	30.11	29.93	61.9	62.3	30.11	29.90	Calm	NE	Overcast	Overcast, Light Rain	Yes
95R Franklin Street	12/23/2007	1B	62.3	61.3	30.11	29.93	61.9	62.3	30.11	29.90	Calm	NE	Overcast	Overcast, Light Rain	Yes
95R Franklin Street	12/23/2007	B1	62.3	61.3	30.11	29.93	60.2	62.3	30.10	29.90	Calm	NE	Overcast	Overcast, Light Rain	Yes
95R Franklin Street	12/23/2007	B2	62.3	61.3	30.11	29.93	60.2	62.3	30.10	29.90	Calm	NE	Overcast	Overcast, Light Rain	Yes
95R Franklin Street	12/28/2007	1	45.8	41.1	30.30	30.39	60.0	60.3	30.30	30.39	Calm	Calm	Sunny	Sunny	No
95R Franklin Street	12/28/2007	B	45.8	41.1	30.30	30.39	58.5	59.1	30.30	30.39	Calm	Calm	Sunny	Sunny	No
97 Franklin Street	2/21/2008	B	25.9	27.4	29.84	29.81	56.4	56.4	29.84	29.84	NM	NM	Sunny	Sunny	No
97 Franklin Street	2/21/2008	1	25.9	27.4	29.84	29.84	61.5	61.8	29.84	29.84	NM	NM	Sunny	Sunny	No
97R Franklin Street	11/19/2007	1	36	37	30.52	30.49	57.3	NM	NM	NM	NE	NE	Overcast	Overcast	No
97R Franklin Street	11/19/2007	B	36	37	30.52	30.49	55.5	59.9	NM	NM	NE	NE	Overcast	Overcast	No
97R Franklin Street	2/4/2008	1	40	42	30.43	30.40	54	55	30.43	30.40	Calm	Calm	Cloudy	Cloudy	No
97R Franklin Street	2/4/2008	B	40	42	30.43	30.40	54	54	30.43	30.40	Calm	Calm	Cloudy	Cloudy	No
99 Franklin Street	2/5/2008	1	43	37	29.89	29.92	62	64	29.88	29.86	W	W	Cloudy	Cloudy	Yes
99 Franklin Street	2/5/2008	B	43	37	29.89	29.92	60	59	29.88	29.86	W	W	Cloudy	Cloudy	Yes
152-154 Glen Street	11/1/2007	1	58.6	68.1	30.02	30.00	69.2	70.4	30.03	30.00	N	N	Cloudy	Cloudy	No
152-154 Glen Street	11/1/2007	B	58.6	68.1	30.02	30.00	69.2	70.4	30.02	30.00	N	N	Cloudy	Cloudy	No
152-154 Glen Street	2/11/2008	1	15.8	20.10	29.98	30.04	60	61	30.00	30.08	NM	NM	Sunny, Windy	NM	No
152-154 Glen Street	2/11/2008	B	15.8	22.1	29.98	30.08	50	53	30.04	30.10	NM	NM	Sunny, Windy	Sunny, Windy	No
153-155 Glen Street	11/5/2007	1	51.2	46.7	29.99	30.06	58.6	59.0	29.98	30.05	N	Calm	Partly Sunny	Clear	No
153-155 Glen Street	11/5/2007	B	51.2	46.7	29.99	30.06	63.8	64.4	29.99	30.06	N	Calm	Partly Sunny	Clear	No
153-155 Glen Street	2/6/2008	B	42	41	29.62	29.78	58	65	29.62	29.78	W	W	Rain	Rain	Yes
163 Glen Street	11/5/2007	1A	64.2	53.9	30.02	30.05	67.8	67.1	30.03	30.05	Calm	E	Sunny	Clear	No
163 Glen Street	11/5/2007	1B	64.2	53.9	30.02	30.05	69.8	68.9	30.03	30.05	Calm	E	Sunny	Clear	No
163 Glen Street	2/11/2008	1	15.0	27.5	29.98	30.10	56.8	60.2	30.08	30.10	NM	NM	Sunny, Windy	Sunny, Windy	No

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. NM = not measured.

Table 3-2b

Summary of Meteorological Data During Indoor Air Sampling Events

Residential and Commercial Properties

50 Tufts Street

Somerville, Massachusetts

Sample Location:	Sample Date:	Sample ID:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Inside Temperature (°F):		Inside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to Sampling?
			Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
2 Hadley Court #2a	3/7/2008	G	NM	NM	30.26	30.15	NM	NM	30.26	30.16	NM	NM	Partly Sunny	Overcast	No
2 Hadley Court #2a	3/7/2008	1	NM	NM	30.26	30.15	NM	NM	30.26	30.16	NM	NM	Partly Sunny	Overcast	No
2 Hadley Court #2b	2/18/2008	1	58	60	29.74	29.59	66	66	29.74	29.59	N	N	Rain	Cloudy	Yes
2 Hadley Court #2b	2/18/2008	G	58	60	29.74	29.59	54	56	29.74	29.59	N	N	Rain	Cloudy	Yes
2 Hadley Court #2c	2/13/2008	1	38	40	29.82	29.63	55	55	29.82	29.63	Calm	Calm	Rain	Rain	Yes
2 Hadley Court #2c	2/13/2008	G	38	40	29.82	29.63	42	46	29.82	29.63	Calm	Calm	Rain	Rain	Yes
12-14 Knowlton Street	11/13/2007	B	50.1	59.5	29.95	29.95	60.8	62.4	29.95	29.96	Calm	Calm	Rain	Sunny	Yes
12-14 Knowlton Street	11/13/2007	1	50.1	59.5	29.95	29.95	64.0	67.4	29.93	29.95	Calm	Calm	Rain	Sunny	Yes
13 Knowlton Street	11/7/2007	B	49.1	48.1	29.97	29.99	64.0	77.1	29.96	30.00	Calm	N	Sunny	Partly Cloudy	No
17 Knowlton Street	10/5/2007	1	71.9	85.2	30.33	30.26	70.3	72.1	30.34	30.26	NW	SE	Sunny	Sunny	No
17 Knowlton Street	10/5/2007	B	71.9	85.2	30.33	30.26	69.8	69.0	30.34	30.27	NW	SE	Sunny	Sunny	No
19 Knowlton Street	12/6/2007	B	28.2	29.1	30.12	30.21	51.6	51.8	30.12	30.21	S	S	Sunny	Sunny	No
19 Knowlton Street	12/6/2007	1	28.2	29.1	30.12	30.21	66.5	67.6	30.12	30.21	S	S	Sunny	Sunny	No
19 Knowlton Street	2/15/2008	1	49	44	28.40	30.02	66	66	28.40	30.02	NM	NM	Sunny	Cloudy	No
19 Knowlton Street	2/15/2008	B	49	45	28.40	30.02	57	54	28.40	30.02	NM	NM	Sunny	Cloudy	No
23 Knowlton Street	11/7/2007	1	51.2	46.2	29.99	30.06	62.7	62.0	29.98	30.05	N	Calm	Partly Sunny	Clear	No
23 Knowlton Street	11/7/2007	B	51.2	46.2	29.99	30.06	63.1	62.6	29.98	30.06	N	Calm	Partly Sunny	Clear	No
23 Knowlton Street	2/5/2008	1	38	41	30.12	30.02	63	64	30.11	29.94	W	W	Rain	Rain	Yes
23 Knowlton Street	2/5/2008	B	38	41	30.12	30.02	60	62	30.11	29.94	W	W	Rain	Rain	Yes
27 Knowlton Street	3/7/2008	B	NM	NM	30.26	30.15	NM	NM	30.27	30.16	NM	NM	Partly Sunny	Overcast	No
29 Knowlton Street	2/2/2008	B	48.1	51.2	29.53	29.59	57.7	59.1	29.52	29.59	NM	NM	Partly Cloudy	Partly Cloudy	No
29 Knowlton Street	2/2/2008	1	48.1	51.2	29.53	29.59	59.1	66.2	29.52	29.59	NM	NM	Partly Cloudy	Partly Cloudy	No
31-33 Knowlton Street	11/12/2007	1	34.8	44.9	30.37	30.31	67.8	69.6	30.36	30.31	Calm	Calm	Partly Cloudy	Partly Cloudy	No
31-33 Knowlton Street	11/12/2007	B	34.8	44.9	30.37	30.31	59.9	60.8	30.34	30.32	Calm	Calm	Partly Cloudy	Partly Cloudy	No
31-33 Knowlton Street	2/6/2008	1	41	45	29.78	29.61	64	70	29.76	29.61	W	W	Rain	Rain	Yes
31-33 Knowlton Street	2/6/2008	B	41	45	29.78	29.61	59	60	29.79	29.61	W	W	Rain	Rain	Yes

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. NM = not measured.

Table 3-2b

Summary of Meteorological Data During Indoor Air Sampling Events
Residential and Commercial Properties
50 Tufts Street
Somerville, Massachusetts

Sample Location:	Sample Date:	Sample ID:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Inside Temperature (°F):		Inside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to Sampling?
			Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
6-8 Morton Street	11/7/2007	1	47.3	51.2	29.96	29.98	52.1	56.4	29.95	29.98	Calm	N	Sunny	Partly Cloudy	No
6-8 Morton Street	11/7/2007	B	47.3	51.2	29.96	29.98	54.6	56.4	29.96	29.98	Calm	N	Sunny	Partly Cloudy	No
6-8 Morton Street	2/7/2008	1	34	33.9	29.69	29.79	NM	53.6	NM	29.84	N	NE	Light Snow	Heavy Snow	Yes
6-8 Morton Street	2/7/2008	B	34	33.9	29.69	29.79	NM	51.0	NM	29.84	N	NE	Light Snow	Heavy Snow	Yes
7 Morton Street	11/13/2007	1	55.7	51.8	29.94	29.97	66.3	67.8	NM	30.00	NW	Calm	Mostly Sunny	Clear	Yes
7 Morton Street	11/13/2007	B	55.6	51.8	29.94	29.97	65.4	64.4	NM	30.00	NW	Calm	Mostly Sunny	Clear	Yes
7 Morton Street	2/20/2008	1	36.8	32.7	29.60	29.61	62.9	59.1	29.59	29.60	W	W	Sunny	Sunny	No
7 Morton Street	2/20/2008	B	36.8	32.7	29.60	29.61	59.9	62.9	29.60	29.60	W	W	Sunny	Sunny	No
10 Morton Street	11/12/2007	1	44.9	46.4	30.28	30.23	69.2	66.9	30.28	30.23	Calm	Calm	Partly Cloudy	Partly Cloudy	No
10 Morton Street	11/12/2007	B	44.9	46.4	30.28	30.23	64.2	62.1	30.28	30.23	Calm	Calm	Partly Cloudy	Partly Cloudy	No
10 Morton Street	2/21/2008	1	27	26	29.78	29.84	57	56	29.78	29.84	W	N	Clear	Clear	No
10 Morton Street	2/21/2008	B	27	26	29.78	29.84	55	55	29.78	29.84	W	N	Clear	Clear	No
12 Morton Street	3/5/2008	1A	51.0	59.5	NM	NM	55.7	59.1	NM	NM	Calm	W	Rain	Cloudy	Yes
12 Morton Street	3/5/2008	1B	51.0	59.5	NM	NM	55.7	59.1	NM	NM	Calm	W	Rain	Cloudy	Yes
12 Morton Street	3/5/2008	B1	51.0	59.5	NM	NM	60.6	55.9	NM	NM	Calm	W	Rain	Cloudy	Yes
12 Morton Street	3/5/2008	B2	51.0	59.5	NM	NM	60.6	55.9	NM	NM	Calm	W	Rain	Cloudy	Yes
15 Morton Street	2/27/2008	1	37	42	29.42	29.49	62	63	29.40	29.49	Calm	N	Cloudy	Cloudy	Yes
15 Morton Street	2/27/2008	B	37	42	29.42	29.49	55	54	29.42	29.50	Calm	N	Cloudy	Cloudy	Yes
18 Morton Street	11/5/2007	B	52.8	60.6	30.07	30.02	66.5	66.5	30.07	30.02	Calm	Calm	Sunny	Sunny	No
18 Morton Street	2/4/2008	B	43	42	30.43	30.41	59	62	30.43	30.43	Calm	Calm	Cloudy	Cloudy	No
23 Tufts Street	11/17/2007	1	38.1	41.9	29.89	29.90	71.9	69.9	29.89	29.92	W	N	Sunny, Windy	Sunny, Windy	No
23 Tufts Street	11/17/2007	B	38.1	42.0	29.89	29.92	70.7	66.2	29.90	29.92	W	N	Sunny, Windy	Partly Cloudy, Windy	No
23 Tufts Street	2/1/2008	1	38	39	30.29	30.02	68	68	30.29	30.02	N	N	Heavy Rain	Light Rain	Yes
23 Tufts Street	2/1/2008	B	38	39	30.29	30.02	74	74	30.29	30.02	N	N	Heavy Rain	Light Rain	Yes
53 Tufts Street	11/9/2007	B	37.9	47.8	30.23	30.18	55.7	56.1	30.26	30.19	Calm	Calm	Cloudy	Partly Sunny	No
53 Tufts Street	2/15/2008	B	38	45	29.93	30.00	50	50	29.93	30.00	N	N	Cloudy	Partly Cloudy	No

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. NM = Not Measured.

Table 3-2b

Summary of Meteorological Data During Indoor Air Sampling Events
Residential and Commercial Properties
50 Tufts Street
Somerville, Massachusetts

Sample Location:	Sample Date:	Sample ID:	Outside Temperature (°F):		Outside Barometric Pressure (in. Hg):		Inside Temperature (°F):		Inside Barometric Pressure (in. Hg):		Prevailing Wind Direction:		General Weather Conditions:		Significant precipitation within 12 hours prior to Sampling?
			Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
60 Tufts Street, #4	2/20/2008	1	25	37	30.06	30.14	62	62	30.04	30.12	Calm	N	Sunny	Sunny	No
60 Tufts Street, #4	2/20/2008	B	25	37	30.06	30.14	56	56	30.04	30.12	Calm	N	Sunny	Sunny	No
60 Tufts Street, #10	3/6/2008	1	38	43	30.17	30.21	72	71	30.17	30.21	W	W	Sunny	Sunny	No
60 Tufts Street, #16	3/6/2008	1	38	43	30.17	30.21	75	73	30.17	30.21	W	W	Sunny	Sunny	No
85 Washington Street	11/14/2007	2	68.9	56.6	NM	NM	63.6	62.4	NM	NM	E	Calm	Sunny	Cloudy	No
85 Washington Street	11/14/2007	1	68.9	56.6	NM	NM	57.9	56.3	NM	NM	E	Calm	Sunny	Cloudy	No
85 Washington Street	2/12/2008	AUDI	28.3	29.7	30.28	30.28	65.1	64.4	30.28	30.28	NE	NE	Cloudy	Cloudy	No
85 Washington Street	2/12/2008	PARK	28.3	29.7	30.28	30.28	43.7	44.2	30.28	30.28	NE	NE	Cloudy	Cloudy	No
97 Washington Street	11/5/2007	1	46.7	60.6	30.05	30.02	64.9	71.0	30.09	30.02	Calm	Calm	Sunny	Sunny	No
97 Washington Street	11/5/2007	B	46.7	60.6	30.05	30.02	76.6	77.5	30.09	30.04	Calm	Calm	Sunny	Sunny	No
97 Washington Street	2/5/2008	1	39	43	30.01	29.82	64	74	30.01	29.82	W	W	Rain	Cloudy	Yes
97 Washington Street	2/5/2008	B	39	43	30.01	29.82	78	80	30.01	29.84	W	W	Rain	Cloudy	Yes
121 Washington Street	11/6/2007	1B	57.0	50.0	29.76	29.72	63.5	62.6	29.73	29.70	E	E	Rainy	Rainy	Yes
121 Washington Street	11/6/2007	1A	57.0	50.0	29.76	29.72	62.9	65.4	29.73	29.71	E	E	Rainy	Rainy	Yes
121 Washington Street	2/11/2008	1	22	27.5	30.08	30.10	58.4	58.4	30.07	30.12	NM	NM	Sunny, Windy	Sunny, Windy	No

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. NM = Not Measured.

Table 3-3

Dates and Locations of Indoor Air Sampling, October 1, 2007 - March 31, 2008

Residential and Commercial Properties

50 Tufts Street

Somerville, Massachusetts

Property:	Sample Date:	Property:	Sample Date:
10 Morton Street	11/12/2007	30-40 Alston Street ³	2/12/2008
10 Morton Street	2/21/2008	31-33 Knowlton Street	11/12/2007
12 Morton Street	3/5/2008	31-33 Knowlton Street	2/6/2008
12 Morton Street	3/21/2008	53 Tufts Street	11/9/2007
121 Washington Street	11/6/2007	53 Tufts Street	2/15/2008
121 Washington Street	2/11/2008	60 Tufts Street, #10 ²	3/6/2008
12-14 Knowlton Street	11/13/2007	60 Tufts Street, #16 ²	3/6/2008
13 Knowlton Street	11/7/2007	60 Tufts Street, #4 ²	2/20/2008
142 Cross Street	11/6/2007	6-8 Morton Street	11/7/2007
15 Morton Street	2/27/2008	6-8 Morton Street	2/7/2008
152-154 Glen Street	11/1/2007	7 Morton Street	11/13/2007
152-154 Glen Street	2/11/2008	7 Morton Street	2/20/2008
153-155 Glen Street	11/5/2007	74 Franklin Street	2/7/2008
153-155 Glen Street	2/6/2008	76 Franklin Street	11/5/2007
163 Glen Street ³	11/5/2007	76 Franklin Street	2/11/2008
163 Glen Street ³	2/11/2008	80 Franklin Street	1/31/2008
17 Knowlton Street	10/5/2007	82 Franklin Street	11/29/2007
18 Morton Street ¹	11/5/2007	82 Franklin Street	3/6/2008
18 Morton Street ¹	2/4/2008	85 Washington Street	11/14/2007
19 Knowlton Street	12/6/2007	85 Washington Street	2/12/2008
19 Knowlton Street	2/15/2008	86 Franklin Street	11/12/2007
2 Hadley Court #2a	3/7/2008	86 Franklin Street	2/4/2008
2 Hadley Court #2b	2/18/2008	95R Franklin Street	11/15/2007
2 Hadley Court #2c	2/13/2008	95R Franklin Street	12/23/2007
23 Knowlton Street	2/5/2008	95R Franklin Street	12/28/2007
23 Knowlton Street	11/7/2007	97 Franklin Street	2/21/2008
23 Tufts Street	11/17/2007	97 Washington Street	11/5/2007
23 Tufts Street	2/1/2008	97 Washington Street	2/5/2008
27 Knowlton Street	3/7/2008	97R Franklin Street	11/19/2007
29 Knowlton Street	2/2/2008	97R Franklin Street	2/4/2008
30-40 Alston Street ³	11/1/2007	99 Franklin Street ¹	2/5/2008

General Notes:

1. Samples were typically collected from the basement and the first floor of each building except 99 Franklin Street and 18 Morton Street, where samples were only collected in the basement.
2. Samples were collected in the 60 Tufts Street units listed.
3. Samples were collected on the first floor at the commercial buildings located at 163 Glen Street and 30-40 Alston Street.

Table 3-4
Chemical Testing Results - Soil Vapor Samples, 60 Tufts Street
Residential and Commercial Properties
50 Tufts Street
Somerville, Massachusetts

Analyte	Method	60 Tufts Street Parking Lot								60 Tufts Street						60 Tufts Street					
		045162-SVT-MW202S								045162-60TUFT-SS10						045162-60TUFT-SS13					
		7/17/07		1/16/08		1/17/08		1/21/08		1/16/08		1/17/08		1/21/08		1/16/08		1/17/08		1/21/08	
		GEI		GEI		GEI		GEI		GEI		GEI		GEI		GEI		GEI		GEI	
		Units:	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		< 25	< 4.0	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	< 1.3	< 0.20	1.1 J	0.18 J
1,1-Dichloroethane		< 16	< 4.0	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	2.2	0.54	1.3	0.3	2.6	0.64
1,1-Dichloroethene		11 J	2.8 J	0.79	0.2	0.48 J	0.12 J	0.14 J	0.56 J	3.7	0.93	1.4	0.35	2.7	0.68	40.8	10.3	23	5.7	49.6	12.5
cis-1,2-Dichloroethene		< 16	< 4.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	1.3	0.33	0.67 J	0.17 J	1.3	0.3	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		2550	376	252	37.1	366	54	403	59.4	895	132	504	74.3	692	102.0	237	34.9	249	36.7	214	31.6
1,1,1-Trichloroethane		537	98.5	28	5.1	27	4.9	35	6.4	14	2.5	5.1	0.94	9.3	1.7	3260	597	1010	186	3100	568
1,1,2-Trichloroethane		< 22	< 4.0	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		253	47	11	2	11	2	15	2.7	226	42.1	196	36.5	170	31.6	5.9	1.1	4.6	0.86	8.1	1.5

- General Notes:**
- 1. Analyte detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. Refer to Figure 3-2 for Sample Locations.

Qualifying Notes:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-4
Chemical Testing Results - Soil Vapor Samples, 60 Tufts Street
Residential and Commercial Properties
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By: Units:		60 Tufts Street						60 Tufts Street						60 Tufts Street						60 Tufts Street					
		045162-60TUFT-SS14						045162-60TUFT-SS16						045162-60TUFT-Unit4-SS1						045162-60TUFT-StorageS-SS2					
		1/16/08 GEI		1/17/08 GEI		1/21/08 GEI		1/16/08 GEI		1/17/08 GEI		1/21/08 GEI		1/16/08 GEI		1/17/08 GEI		1/21/08 GEI		1/16/08 GEI		1/17/08 GEI		1/21/08 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																								
Volatile Organic Compounds (VOCs)	TO-15																								
Carbon tetrachloride		< 0.13	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.63 J	0.10 J
1,1-Dichloroethane		1.2	0.3	0.89	0.2	1.5	0.36	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	2.8	0.7	< 0.81	< 0.20	1.1	0.28
1,1-Dichloroethene		26	6.5	15	3.8	35	8.9	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	293	73.9	< 11	< 2.9	77.7	19.6
cis-1,2-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		2370	349	1970	291	2500	368.0	134	19.8	119	17.5	199	29.3	89.5	13.2	94.3	13.9	117	17.2	16	2.3	3.5	0.52	11	1.6
1,1,1-Trichloroethane		2440	448	1310	241	2240	410	79.7	14.6	14	2.5	72.6	13.3	200	36.7	197	36.1	234	42.9	2300	422	85.1	15.6	447	81.9
1,1,2-Trichloroethane		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		160	29.8	152	28.3	127	23.7	8.6	1.6	7	1.3	12	2.2	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	25	4.6	4.4	0.82	16	2.9

- General Notes:**
- 1. Analyte detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. Refer to Figure 3-2 for Sample Locations.

Qualifying Notes:

J The reported result is below the laboratory reporting limit and is estimated.

Summary of SSDS Effluent Testing Results, 95R Franklin Street Residential and Commercial Properties

Somerville, Massachusetts

General Notes:

- ### Qualifying Notes:

- GEI Consultants, Inc.

Table 3-6a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

12 Alston Street

Somerville, Massachusetts

Sample Location:		12 Alston Street	
Sample Name:		12Alst-SS1	
Sample Date:		4/19/2007	
Units:		12Alst-SS2	
Method		4/19/2007	
TO-15		4/19/2007	
Volatile Organic Compounds (VOCs)		4/19/2007	
Tetrachloroethene (PCE)		4/19/2007	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-6b
Chemical Testing Results - Indoor Air Sampling
12 Alston Street
Somerville, Massachusetts

12 Alston Street - No Indoor Air Sampling

Table 3-7a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

16-20 Alston Street

Somerville, Massachusetts

Sample Location:		16-20 Alston Street	
Sample Name:		20AL-SS1	
Sample Date:		6/26/2007	
Analyte	Method	Units:	Units:
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE) 1,1,1-Trichloroethane	TO-15	$\mu\text{g}/\text{m}^3$	ppbv
		72.6	10.7
		5.1	0.93

General Notes

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-7b
Chemical Testing Results - Indoor Air Sampling
16-20 Alston Street
Somerville, Massachusetts

		16-20 Alston Street			
		20ALST-1 8/10/2007		20ALST-B 8/10/2007	
		µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
Carbon tetrachloride		0.61 J	0.097 J	0.82 J	0.13 J
Tetrachloroethene (PCE)		0.95 J	0.14 J	1.6	0.23
1,1,1-Trichloroethane		4.8	0.88	0.60 J	0.11 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		30-40 Alston Street					
		40 ALSTON-SS1 3/8/2007		40 ALSTON-SS2 3/8/2007		40 ALSTON-SS3 3/8/2007	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method						
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE) 1,1,1-Trichloroethane	TO-15						
		2.8	0.42	< 1.4	< 0.20	2.4	0.36
		2.3	0.42	25	4.5	19	3.5

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-8a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

30-40 Alston Street

Somerville, Massachusetts

Analyte	30-40 Alston Street (continued)					
	Sample Location:		Sample Name:		Sample Date:	
	Units:		Method			
Volatile Organic Compounds (VOCs)			TO-15			
Tetrachloroethene (PCE)						
1,1,1-Trichloroethane						
	40 ALSTON-SS4 3/8/2007	ppbv	30 ALSTON-SS5 3/8/2007	ppbv	30 ALSTON-SS6 3/8/2007	ppbv
	µg/m ³		µg/m ³		µg/m ³	
	9.5	1.4	5.0	0.74	1.7	0.25
		0.25	0.93 J	0.17 J	1.0 J	0.19 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-8b

Chemical Testing Results - Indoor Air Sampling
 30-40 Alston Street
 Somerville, Massachusetts

Analyte	30-40 Alston Street					
	Sample Location:		32 Alston-1		40 Alston-1	
	Sample Name:	Sample Date:	µg/m ³	ppbv	µg/m ³	ppbv
Units:						
Method						
TO-15						
Volatile Organic Compounds (VOCs)						
Carbon tetrachloride			< 1.3	< 0.20	< 1.3	< 0.20
Tetrachloroethene (PCE)			7.5	1.1	4.3	0.63
Trichloroethene (TCE)			0.70 J	0.13 J	< 1.1	< 0.20
					0.62J	0.099 J
					1.3 J	0.19 J
					< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-8b

Chemical Testing Results - Indoor Air Sampling

30-40 Alston Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units: Method		30-40 Alston Street (continued)					
		40ALST-FLAG 11/1/07		30ALST-COST 2/12/08		30ALST-FLAG 2/12/08	
		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Volatile Organic Compounds (VOCs)							
Carbon tetrachloride		0.69 J	0.11 J	0.58 J	0.092 J	< 1.3	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	18	2.7	4.3	0.63
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
142 Cross Street
Somerville, Massachusetts

General Notes:

- Qualifying Note:**

04516-2
Page 1 of 1

Table 3-9b
Chemical Testing Results - Indoor Air Sampling
142 Cross Street
Somerville, Massachusetts

142 Cross Street - all analytes non-detect 11/6/2007

Table 3-10a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

74 Franklin Street
Somerville, Massachusetts

Sample Location:	
74 Franklin Street	
Sample Name:	
74FRANK-SS1	
Sample Date:	
7/2/2007	
Analyte	Units:
Method	
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE) 1,1,1-Trichloroethane	$\mu\text{g}/\text{m}^3$
	ppbv
	2.8
	0.60 J
	0.41
	0.11 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-10b

Chemical Testing Results - Indoor Air Sampling

74 Franklin Street

Somerville, Massachusetts

Analyte	74 Franklin Street							
	Sample Location:							
	Sample Name:							
	Sample Date:							
	Units:							
Method		74FRAN-1		74FRAN-B		74FRAN-B		
Volatile Organic Compounds (VOCs) Carbon tetrachloride Dichloroethane, 1,2-	TO-15		9/19/2007		9/19/2007		2/7/2008	
			ppbv		ppbv		ppbv	
	µg/m ³				µg/m ³		µg/m ³	
	0.58 J < 0.81		0.092 J < 0.20		< 1.3 < 0.81		0.60 J < 0.81	
					< 0.20 < 0.20		0.10 J 0.12 J	
						0.096 J < 0.20		

Table 3-11a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

76 Franklin Street

Somerville, Massachusetts

Sample Location:		76 Franklin Street	
Sample Name:		76 Fran-SS1	
Sample Date:		4/3/07	
Analyte	Method	Units:	Units:
Volatile Organic Compounds (VOCs)	TO-15		
Tetrachloroethene (PCE)		5.2	0.76
1,1,1-Trichloroethane		0.82 J	0.15 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Indoor Air Sampling

Somerville, Massachusetts

Sample Location:		76 Franklin Street							
Sample Name:		045162-76FRAN-1		045162-76FRAN-B		045162-76FRAN-1		045162-76FRAN-B	
Sample Date:		11/5/2007		11/5/2007		2/11/2008		2/11/2008	
Units:		μg/m ³		ppbv		μg/m ³		ppbv	
Method									
Volatile Organic Compounds (VOCs)		0.62 J		0.099 J		0.62 J		0.63 J, J+	
Carbon tetrachloride		1.4		0.2		< 1.3		< 1.4 J+	
Tetrachloroethene (PCE)						< 1.4		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		< 0.20 J+	
						< 0.20		<	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J** The reported result is below the laboratory reporting limit and is estimated.
- J+** The report result is estimated.

Table 3-12a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

80 Franklin Street

Somerville, Massachusetts

Sample Location:		80 Franklin Street
Sample Name:		80FRANK-SS1
Sample Date:		6/20/2007
Analyte	Method	Units:
Volatile Organic Compounds (VOCs)	TO-15	
Tetrachloroethene (PCE)		
	1.7	ppbv
		0.25

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-12b
Chemical Testing Results - Indoor Air Sampling
80 Franklin Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		80 Franklin Street					
		80FRAN-1 9/17/2007		80FRAN-B 9/17/2007		80FRANK-1 1/31/2008	
		ppbv		ppbv		ppbv	
Analyte	Units: Method	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15						
Carbon tetrachloride		0.59 J	0.093 J	0.57 J	0.091 J	< 1.3	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:
 J The reported result is below the laboratory reporting limit and is estimated.

Table 3-13a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

82 Franklin Street
Somerville, Massachusetts

Analyte	82 Franklin Street			
	Sample Location:			
	Sample Name:		82 FRANK-SS2	
	Sample Date:		3/26/2007	
Volatile Organic Compounds (VOCs)	Units:			
	Method			
Carbon tetrachloride	TO-15			
Tetrachloroethene (PCE)				
	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
	0.60 J 1.2 J	0.096 J 0.17 J	< 1.3 < 1.4	< 0.20 < 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Indoor Air Sampling

Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-14a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

86 Franklin Street

Somerville, Massachusetts

Sample Location:		86 Franklin Street	
Sample Name:		86 Frank-SG2	
Sample Date:		4/25/07	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
Carbon tetrachloride	TO-15	0.94 J	0.15 J
Tetrachloroethene (PCE)		57	8.4
1,1,1-Trichloroethane		1.9	0.34
Trichloroethene (TCE)		1.6	0.29

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-14b

Chemical Testing Results - Indoor Air Sampling

86 Franklin Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		86 Franklin Street										
		86 FRANK-1 6/5/2007		86FRANK-1 11/12/2007		86FRANK-B 11/12/2007		86FRANK-1 2/4/2008		86FRANK-B 2/4/2008		
		Units:										
		Method										
Analyte	Volatile Organic Compounds (VOCs)		TO-15									
	Carbon tetrachloride											
	1,1,1-Trichloroethane											
		$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	
		0.88 J < 1.1	0.14 J < 0.20	0.60 J < 1.1	0.095 J < 0.20	0.58 J 0.76 J	0.092 J 0.14 J	< 1.3 < 1.1	< 0.20 < 0.20	< 1.3 < 1.1	< 0.20 < 0.20	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-15a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

91-93 Franklin Street
Somerville, Massachusetts

Sample Location:		91-93 Franklin Street	
Sample Name:		91 FRANK-SG1A	91 FRANK-SG1A
Sample Date:		3/20/2007	3/20/2007
Units:		$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method		
Volatile Organic Compounds (VOCs)			
Dichloroethane, 1,1-	TO-15	13	3.1
Tetrachloroethene (PCE)		642	94.6
Trichloroethane, 1,1,1-		15	2.8
Trichloroethene (TCE)		40	7.4

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-15b

Chemical Testing Results - Indoor Air Sampling

91-93 Franklin Street

Somerville, Massachusetts

Sample Location:		91-93 Franklin Street	
Sample Name:		93 Franklin-B	
Sample Date:		2/14/07	
Units:		93 Franklin-1	
Analyte	Method		2/14/07
	TO-15		
Volatile Organic Compounds (VOCs)			
Tetrachloroethene (PCE)			
		µg/m ³	ppbv
		3.5	0.52
		µg/m ³	ppbv
		0.95 J	0.14 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-16a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

95 Franklin Street
Somerville, Massachusetts

Sample Location:		
95 Franklin Street		
Sample Name:		
95 Frank-SS2		
Sample Date:		
4/19/07		
Analyte	Method	Units:
Volatile Organic Compounds (VOCs)		
Carbon tetrachloride	TO-15	$\mu\text{g}/\text{m}^3$
1,1-Dichloroethane		ppbv
1,1-Dichloroethene		
trans-1,2-Dichloroethene		
cis-1,2-Dichloroethene		
Tetrachloroethene (PCE)		
1,1,1-Trichloroethane		
Trichloroethene (TCE)		
Vinyl chloride		

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-16b

Chemical Testing Results - Indoor Air Sampling

95 Franklin Street

Somerville, Massachusetts

95 Franklin Street - All Indoor Air Sampling Confirmatory

Table 3-16c

Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling

95 Franklin Street

Somerville, Massachusetts

Analyte	Sample Location:		95 Franklin Street	
	Sample Name:		95FRAN-1	95FRAN-B1
	Sample Date:		6/7/2007	6/7/2007
Units:		$\mu\text{g}/\text{m}^3$	ppbv	ppbv
Volatile Organic Compounds (VOCs)				
Carbon tetrachloride		0.63 J	0.10 J	0.11 J
Tetrachloroethene (PCE)		8.8	1.3	8.1
				1.2

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-17a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

95R Franklin Street

Somerville, Massachusetts

Sample Location:		95R Franklin Street	
Sample Name:		95R FRANK-SS2	
Sample Date:		3/21/2007	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
Dichloroethane, 1,1-	TO-15	793	196
Dichloroethene, cis-1,2-		504	127
Dichloroethene, 1,1-		932	235
Tetrachloroethene (PCE)		108000	15900
Trichloroethane, 1,1,1-		1300	239
Trichloroethene (TCE)		4970	924

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-17b
Chemical Testing Results - Indoor Air Sampling
95R Franklin Street
Somerville, Massachusetts

Analyte	95R Franklin Street									
	Sample Location:		95R Fran-1		95R Fran-B		95RFRANK-1		95RFRANK-CR	
	Sample Name:		4/18/07		4/18/07		6/5/07		6/5/07	
	Sample Date:									
	Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Method										
TO-15										
Volatile Organic Compounds (VOCs)										
Carbon tetrachloride										
1,1,1-Trichloroethane										
Tetrachloroethene (PCE)										
Trichloroethene (TCE)										

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-17c

Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling

95R Franklin Street

Somerville, Massachusetts

95R Franklin Street							
Analyte	Sample Location:						
	Sample Name:						
	Sample Date:						
	Units:						
Method		95RFRANK-1		95RFRANK-B		95RFRANK-1	
TO-15		8/23/2007		8/23/07		11/15/2007	
Volatile Organic Compounds (VOCs)		ppbv		ppbv		ppbv	
Carbon tetrachloride		µg/m³		µg/m³		µg/m³	
1,1,1-Trichloroethane		0.69 J		0.69 J		0.61 J	
Tetrachloroethene (PCE)		0.11 J		0.11 J		0.097 J	
Trichloroethene (TCE)		< 1.1		< 1.1		< 0.20	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 1.1		< 1.1		< 1.1	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		< 0.20	
		2.3		3.5		1.3 J	
		0.34		0.52		0.19 J	
		< 0.20		< 0.20		< 0.20	
		0.69 J		0.69 J		0.63 J	
		< 1.1		< 1.1		< 1.1	
		0.11 J		0.11 J		0.097 J	
		< 0.20		< 0.20		<	

Table 3-17c
Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling
95R Franklin Street
Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date: Units: Method	95R Franklin Street (continued)					
		95R Fran-B2 12/23/07		95R Fran-1A 12/23/07		95R Frank-1 12/28/07	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
							95R Frank-B 12/28/07 ppbv
Volatile Organic Compounds (VOCs)	TO-15						
Carbon tetrachloride		< 1.3	< 0.20	0.58 J	0.092 J	0.62 J	< 1.3
1,1,1-Trichloroethane		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 1.1
Tetrachloroethene (PCE)		< 1.4	< 0.20	1.0 J	0.15 J	1.1 J	1.1 J
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 1.1

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-18a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

97 Franklin Street

Somerville, Massachusetts

Sample Location:		97 Franklin Street		
Sample Name:		97FRANK-SS1	97FRANK-SS2	
Sample Date:		6/30/2007	6/30/2007	
Units:		µg/m³	ppbv	µg/m³
ppbv				
Analyte	Method			
Volatile Organic Compounds (VOCs)				
Carbon tetrachloride	TO-15	0.82 J	0.13 J	< 0.53
Tetrachloroethene (PCE)		34	5.0	86.8
1,1,1-Trichloroethane		< 1.1	< 0.20	1.5
				0.27

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-18b
Chemical Testing Results - Indoor Air Sampling
 97 Franklin Street
 Somerville, Massachusetts

97 Franklin Street										
Analyte	Sample Location:		97FRAN-1		97FRAN-B		97FRAN-1		97FRAN-B	
	Sample Name:		9/29/2007		9/29/2007		2/21/2008		2/21/2008	
	Sample Date:									
	Units:		µg/m ³		ppbv		µg/m ³		ppbv	
	Method									
	TO-15									
Volatile Organic Compounds (VOCs)										
Dichloroethane, 1,2-										
Tetrachloroethene (PCE)										
			< 0.81		< 0.20		< 0.81		< 0.20	
			< 1.4		< 0.20		< 1.4		< 0.20	
							0.69 J		0.17 J	
							< 1.4		< 0.20	
									1.0 J	
									0.15 J	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-19a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

97R Franklin Street

Somerville, Massachusetts

Sample Location:		97R Franklin Street	
Sample Name:		97R Frank-SS1	
Sample Date:		4/27/2007	
Analyte	Method	Units:	
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE)	TO-15	$\mu\text{g}/\text{m}^3$	ppbv
		60	8.9

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-19b

Chemical Testing Results - Indoor Air Sampling

97R Franklin Street

Somerville, Massachusetts

Analyte		97R Franklin Street							
		Sample Location:		97RFRANK-1		97RFRANK-B		97RFRANK-1	
		Sample Name:	Sample Date:	6/28/2007	ppbv	6/28/2007	ppbv	2/4/2008	97RFRANK-B
		Units:		µg/m ³		µg/m ³		µg/m ³	2/4/2008
		Method							ppbv
Volatile Organic Compounds (VOCs)		TO-15							
Carbon tetrachloride				1.1 J	0.18 J	1.6	0.25	< 1.3	< 0.20
1,1,1-Trichloroethane				0.42 J	0.077 J	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

General Notes:

- Qualifying Note:**

May 2008

Table 3-20b

Chemical Testing Results - Indoor Air Sampling

99 Franklin Street
Somerville, Massachusetts

Sample Location:		99 Franklin Street					
Sample Name:		99FRANK-B		99FRANK-1		99FRANK-B	
Sample Date:		6/25/2007		2/5/2008		2/5/2008	
Units:		µg/m ³		ppbv		ppbv	
Method		µg/m ³		µg/m ³		µg/m ³	
TO-15		1.4		0.21		1.2 J	
Volatile Organic Compounds (VOCs)							
Tetrachloroethene (PCE)						8.1	
						0.17 J	
						1.2	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-21a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

152-154 Glen Street

Somerville, Massachusetts

Sample Location:		152-154 Glen Street	
Sample Name:		154 GLEN-SS1	
Sample Date:		2/28/2007	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE) 1,1,1-Trichloroethane	TO-15		
		0.88 J	0.13 J
		0.65 J	0.12 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-21b
Chemical Testing Results - Indoor Air Sampling
152-154 Glen Street
Somerville, Massachusetts

Analyte	152-154 Glen Street					
	Sample Location:					
	Sample Name:					
	Sample Date:					
Method	152GLEN-1 11/1/2007		152GLEN-B 11/1/2007		152-154GLEN-1 2/11/2008	
	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)						
Carbon tetrachloride	0.63 J 2.8	0.10 J 0.69	< 1.3 < 0.81	< 0.20 < 0.20	< 1.3 1.3	< 0.20 0.32
1,2-Dichloroethane					< 1.3 < 0.81	< 0.20 < 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-22a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
 153-155 Glen Street
 Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		153-155 Glen Street			
		153 GLEN-SS1 3/12/2007		153 GLEN-SS2 3/12/2007	
		µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
1,1-Dichloroethane		0.33 J	0.082 J	< 0.81	< 0.20
Tetrachloroethene (PCE)		6.0	0.89	5.0	0.74
1,1,1-Trichloroethane		0.51 J	0.094 J	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Indoor Air Sampling

Somerville, Massachusetts

Sample Location:		153-155 Glen Street							
Sample Name:		155GLEN-1 11/7/2007		155GLEN-B 11/7/2007		153-155GLEN-1 2/6/2008		153-155GLEN-B 2/6/2008	
Sample Date:		11/7/2007		11/7/2007		2/6/2008		2/6/2008	
Units:		μg/m ³		ppbv		μg/m ³		ppbv	
Analyte	Method								
Volatile Organic Compounds (VOCs) Carbon tetrachloride	TO-15								
		< 1.3	< 0.20	0.60 J	0.096 J	< 1.3	< 0.20	< 1.3	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-23a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
 156 Glen Street
 Somerville, Massachusetts

Sample Location:		156 Glen Street
Sample Name:		156 GLEN-SS2
Sample Date:		3/15/2007
Analyte	Method	Units:
Volatile Organic Compounds (VOCs)	TO-15	
1,1,1-Trichloroethane		
		$\mu\text{g}/\text{m}^3$
		10
		ppbv
		1.9

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-23b
Chemical Testing Results - Indoor Air Sampling
156 Glen Street
Somerville, Massachusetts

156 Glen Street - All samples non-detect 5/15/07

Table 3-24a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

162-164 Glen Street

Somerville, Massachusetts

Sample Location:		162-164 Glen Street			
Sample Name:		164GLEN-SS1		164GLEN-SS2	
Sample Date:		6/7/2007		6/7/2007	
Units:					
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)	TO-15				
Tetrachloroethene (PCE)		33	4.8	1.2 J	0.17 J
1,1,1-Trichloroethane		1.0 J	0.19 J	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-24b
Chemical Testing Results - Indoor Air Sampling
162-164 Glen Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		162-164 Glen Street			
		162GLEN-1 8/13/2007		162GLEN-B 8/13/2007	
		µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
Carbon tetrachloride		0.63 J	0.10 J	0.69 J	0.11 J
1,2-Dichloroethane		0.65 J	0.16 J	2.5	0.61
Tetrachloroethene (PCE)		2.8	0.41	3.7	0.54
1,1,1-Trichloroethane		0.53 J	0.097 J	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-25a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

163 Glen Street

Somerville, Massachusetts

Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE)	Sample Location:	163 Glen Street	
	Sample Name:	163 Glen-SS1	
	Sample Date:	4/6/07	
	Units:		
	Method		
	TO-15		
		µg/m³	ppbv
		1.4	0.21

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-25b
Chemical Testing Results - Indoor Air Sampling
163 Glen Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		163 Glen Street					
		163GLEN-1A 11/5/2007		163GLEN-1B 11/5/2007		163GLEN-1 2/11/2008	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:					
Volatile Organic Compounds (VOCs)		TO-15					
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.59 J	0.094 J
Tetrachloroethene (PCE)		1.3 J	0.19 J	1.5	0.22	< 1.4	< 0.2
Trichloroethane, 1,1,1-		0.87 J	0.16 J	0.93 J	0.17 J	< 1.1	< 0.2

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-26a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

166-168 Glen Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		166-168 Glen Street			
		168GLEN-SS1 5/30/2007		168GLEN-SS2 5/30/2007	
		µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)		TO-15			
Carbon tetrachloride		0.82 J	0.13 J	< 1.3	< 0.20
1,1-Dichloroethene		< 0.79	< 0.20	0.52 J	0.13 J
Tetrachloroethene (PCE)		10 G	1.5 G	271	39.9
1,1,1-Trichloroethane		0.55 J	0.10 J	7.6	1.4
Trichloroethene (TCE)		0.86 J	0.16 J	9.7	1.8

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- G The report is estimated due to duplicate precision outside control limits.

Table 3-26b
Chemical Testing Results - Indoor Air Sampling
166-168 Glen Street
Somerville, Massachusetts

Sample Location:		166-168 Glen Street	
Sample Name:		045162-166GLEN-1	
Sample Date:		9/7/2007	
Analyte	Method	Units:	Units:
Volatile Organic Compounds (VOCs)	TO-15	µg/m ³	ppbv
Carbon tetrachloride		0.88 J	0.14 J
Tetrachloroethylene (PCE)		5.0	0.74
1,1,1-Trichloroethane		0.47 J	0.087 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Notes:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-27a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

2 Hadley Court, #2a

Somerville, Massachusetts

Sample Location:		2 Hadley Court, #2a			
Sample Name:		2 HAD-SS1		2 HAD-SS2	
Sample Date:		6/1/2007		6/1/2007	
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
Tetrachloroethene (PCE)		$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
1,1,1-Trichloroethane		2.4	0.35	1.2 JG	0.17 JG
		1.1	0.20	0.82 J	0.15 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- G The report is estimated due to duplicate precision outside control limits.

Table 3-27b
Chemical Testing Results - Indoor Air Sampling
2 Hadley Court, #2a
Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date:		2 Hadley Court, #2a					
			2A HAD-1 9/5/2007		2A HAD-G 9/5/2007		2HADA-1 3/7/2008	
	Units:	Method	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
			< 1.1	< 0.20	2.2	0.40	< 1.1	< 0.20
Volatile Organic Compounds (VOCs) 1,1,1-Trichloroethane		TO-15					0.46 J	0.084 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-28a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

2 Hadley Court, #2b

Somerville, Massachusetts

Sample Location:		2 Hadley Court, #2b	
Sample Name:		2BHAD-SS1	
Sample Date:		7/6/2007	
Analyte	Method	Units:	
Volatile Organic Compounds (VOCs)	TO-15		
Tetrachloroethene (PCE)		$\mu\text{g}/\text{m}^3$	ppbv
		2.5	0.37

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-28b

Chemical Testing Results - Indoor Air Sampling

2 Hadley Court, #2b

Somerville, Massachusetts

Sample Location:			2 Hadley Court, #2b							
Sample Name:			2HADB-1		2HADB-G		2BHAD-1		2BHAD-G	
Sample Date:			9/10/2007		9/10/2007		2/18/2008		2/18/2008	
Units:			µg/m ³		ppbv		µg/m ³		ppbv	
Method			µg/m ³		ppbv		µg/m ³		ppbv	
Analyte	TO-15		0.69 J		0.11 J		0.63 J		0.10 J	
	Volatile Organic Compounds (VOCs)		0.69 J		0.11 J		0.63 J		0.10 J	
Carbon tetrachloride			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J		0.11 J		0.63 J		0.10 J	
			0.69 J							

Table 3-29a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

2 Hadley Court, #2c

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		2 Hadley Court, #2c	
		2CHAD-SS1 6/8/2007	2CHAD-SS2 6/8/2007
Analyte	Units:	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)	Method TO-15		$\mu\text{g}/\text{m}^3$
Carbon tetrachloride		< 1.3	0.69 J
Tetrachloroethene (PCE)		< 1.4	3.1
			ppbv
			0.11 J
			0.46

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-29b

Chemical Testing Results - Indoor Air Sampling

2 Hadley Court, #2c
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		2 Hadley Court, #2c					
		2CHAD-1 9/17/2007		2CHAD-G 9/17/2007		2CHAD-1 2/13/2008	
Analyte	Units:	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs) Carbon tetrachloride	Method TO-15	0.62 J	0.098 J	0.62 J	0.099 J	< 1.3	< 0.2
						0.63 J	0.10 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-30a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

9 Knowlton Street

Somerville, Massachusetts

Sample Location:		9 Knowlton Street	
Sample Name:		9 KNOW-SS1	
Sample Date:		2/28/2007	
Analyte	Method	µg/m³	ppbv
Volatile Organic Compounds (VOCs)			
Carbon tetrachloride	TO-15	2.3	0.37
Tetrachloroethene (PCE)		199	29.3
1,1,1-Trichloroethane		0.76 J	0.14 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-30b

Chemical Testing Results - Indoor Air Sampling

9 Knowlton Street

Somerville, Massachusetts

Sample Location: 9 Knowlton Street					
Sample Name:		9KNOW-1		9KNOW-B	
Sample Date:		5/21/2007		5/21/2007	
Analyte	Method	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)					
1,1-Dichloroethene	TO-15	< 0.79	< 0.20	0.63 J	0.16 J
cis-1,2-Dichloroethene		< 0.79	< 0.20	1.5	0.39
Tetrachloroethene (PCE)		94.3 G	13.9 G	366 G	54.0 G
1,1,1-Trichloroethane		1.3	0.23	4.4	0.81
Trichloroethene (TCE)		1.3	0.24	3.9	0.72

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- G The report is estimated due to duplicate precision outside control limits.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

Sample Location:		12 Knowlton Street	
Sample Name:		12 Know-SS1	12 Know-SS2
Sample Date:		3/26/07	3/26/07
Analyte	Units:		
Method			
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE) 1,1,1-Trichloroethane		ppbv	ppbv
		µg/m ³	µg/m ³
		14	6.5
		0.93 J	< 1.1
		2.0	0.96
		0.17 J	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-31b

Chemical Testing Results - Indoor Air Sampling

12-14 Knowlton Street

Somerville, Massachusetts

Analyte		12-14 Knowlton Street									
		Sample Location:		12-14KNOW1		12-14KNOWB		12-14KNOW-1		12-14KNOW-B	
		Sample Name:		6/14/2007		6/14/2007		11/13/2007		11/13/2007	
		Sample Date:		ppbv		µg/m ³		ppbv		µg/m ³	
Method		Units:		µg/m ³		ppbv		µg/m ³		ppbv	
Volatile Organic Compounds (VOCs)		TO-15									
Carbon tetrachloride		< 1.3		< 0.20		0.62 J		0.099 J		0.63 J	
1,2-Dichloroethane		< 0.81		< 0.20		0.40 J		.0.099 J		0.40 J	
Tetrachloroethene (PCE)		< 1.4		< 0.20		1.0 JG		0.15 JG		2.0	
								0.10 J		0.10 J	
								< 0.20		0.10 J	
								< 0.20		0.29	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- G The report is estimated due to duplicate precision outside control limits.

Table 3-32a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

13 Knowlton Street

Somerville, Massachusetts

Sample Location:		13 Knowlton Street	
Sample Name:		13 KNOW-SS1	
Sample Date:		6/4/2007	
Analyte	Method	Units:	
Volatile Organic Compounds (VOCs)			
Carbon tetrachloride	TO-15		
Tetrachloroethene (PCE)			
		$\mu\text{g}/\text{m}^3$	ppbv
		0.82 J 4.5	0.13 J 0.67

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-32b

Chemical Testing Results - Indoor Air Sampling

13 Knowlton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		13 Knowlton Street					
		13KNOW-B 8/28/07		13KNOW-1 8/28/07		13KNOW-B 11/7/07	
		$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
		Method TO-15					
Volatile Organic Compounds (VOCs)							
Carbon tetrachloride		0.69 J	0.11 J	0.60 J	0.096 J	< 1.3	< 0.20
1,2-Dichloroethane		3.1	0.77	< 0.81	< 0.20	1.1	0.27
Tetrachloroethene (PCE)		6.0	0.89	4.5	0.67	< 1.4	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

General Notes:

- May 2008

Table 3-33b

Chemical Testing Results - Indoor Air Sampling

17 Knowlton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		17 Knowlton Street		
		17KNOW-1 10/5/2007	17KNOW-B 10/5/2007	
Analyte	Units:	$\mu\text{g}/\text{m}^3$	ppbv	ppbv
Volatile Organic Compounds (VOCs)				
Carbon tetrachloride	Method TO-15	0.63 J	0.10 J	0.095 J
Tetrachloroethene (PCE)		1.7	0.25	0.40
1,1,1-Trichloroethane		0.71 J	0.13 J	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-34a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

19 Knowlton Street

Somerville, Massachusetts

Sample Location:		19 Knowlton Street	
Sample Name:		19KNOW-SS2	
Sample Date:		6/21/2007	
Units:			
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)	TO-15		
Tetrachloroethene (PCE)		18	2.7

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-34b

Chemical Testing Results - Indoor Air Sampling

19 Knowlton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		19 Knowlton Street							
		19KNOW-1 7/25/2007		19KNOW-B 7/25/2007		19KNOW-1 12/6/2007		19KNOW-B 12/6/2007	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	Carbon tetrachloride	0.60 J	0.096 J	0.59 J	0.094 J	0.63 J	0.10 J	0.69 J	0.11 J
	Dichloroethane, 1,2-	0.61 J	0.15 J	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
	Tetrachloroethene (PCE)	1.2 J	0.17 J	1.3 J	0.19 J	< 1.4	< 0.20	< 1.4	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-35a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

23 Knowlton Street

Somerville, Massachusetts

Sample Location:		23 Knowlton Street
Sample Name:		23 KNOW-SS1
Sample Date:		2/28/2007
Analyte	Method	Units:
Volatile Organic Compounds (VOCs)		
Tetrachloroethene (PCE)	TO-15	
Trichloroethane, 1,1,1-		
		$\mu\text{g}/\text{m}^3$
		ppbv
		4.1
		1.4
		0.61
		0.26

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-35b

Chemical Testing Results - Indoor Air Sampling

23 Knowlton Street
Somerville, Massachusetts

23 Knowlton Street																				
Sample Location:																				
Sample Name:			23 KNOW-1		23 KNOW-B		23KNOW-1		23KNOW-B											
Sample Date:			4/23/2007		4/23/2007		11/7/2007		11/7/2007											
Units:			µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv										
Method																				
Analyte																				
Volatile Organic Compounds (VOCs) Carbon tetrachloride 1,2-Dichloroethane Tetrachloroethene (PCE) 1,1,1-Trichloroethane			TO-15																	
			1.0 J < 0.81		0.16 J < 0.20		< 1.3 < 0.81		< 0.20 < 0.20		0.69 J 0.38 J		0.11 J 0.093 J		< 1.3 0.36 J		< 0.20 0.089 J		< 1.3 < 0.81	
			1.3 J		0.19 J		1.2 J		0.18 J		< 1.4		< 0.20		< 1.4		< 0.20		< 1.4	
			< 1.1		< 0.20		0.87 J		0.16 J		< 1.1		< 0.20		0.60 J		0.11 J		< 1.1	

Table 3-36a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

27 Knowlton Street

Somerville, Massachusetts

Sample Location:		27 Knowlton Street			
Sample Name:		27KNOW-SS1		27KNOW-SS2	
Sample Date:		3/9/2007		3/9/2007	
Units:		µg/m ³		µg/m ³	
Analyte	Method	ppbv		ppbv	
Volatile Organic Compounds (VOCs)	TO-15				
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Table 3-36b

Chemical Testing Results - Indoor Air Sampling

27 Knowlton Street

Somerville, Massachusetts

Sample Location:		27Knowlton Street					
Sample Name:		27 KNOW-B		27 KNOW-1		27KNOW-B	
Sample Date:		5/2/2007		5/2/2007		3/7/2008	
Analyte	Units:	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
	Method						
	TO-15						
	Volatile Organic Compounds (VOCs)						
Carbon tetrachloride		0.75 J	0.12 J	0.61 J	0.097 J	0.61 J	0.097 J
Tetrachloroethene (PCE)		1.0 J	0.15 J	< 1.4	< 0.20	< 1.4	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-37a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

29 Knowlton Street

Somerville, Massachusetts

Analyte	Sample Location:	
	29 Knowlton Street	
	Sample Name:	29KNOW-SS2
	Sample Date:	3/22/2007
Units:		
Method		
TO-15		
Volatile Organic Compounds (VOCs)		
Carbon tetrachloride		
Tetrachloroethene (PCE)		
	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
	ppbv	ppbv
	< 1.3	0.94 J
	5.8	< 1.4
		0.15 J
		< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-37b

Chemical Testing Results - Indoor Air Sampling

29 Knowlton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		29 Knowlton Street					
		29KNOW-1 6/22/2007		29KNOW-B 6/22/2007		29KNOW-1 2/2/2008	
		µg/m ³		µg/m ³		µg/m ³	
		Units:		Units:		Units:	
Analyte	Method						
Volatile Organic Compounds (VOCs)	TO-15						
Carbon tetrachloride		< 1.3		0.63 J		0.10 J	
		< 0.20		0.63 J		0.10 J	
		ppbv		ppbv		ppbv	
		µg/m ³		µg/m ³		µg/m ³	
		29KNOW-1 6/22/2007		29KNOW-B 6/22/2007		29KNOW-1 2/2/2008	
		29KNOW-1 6/22/2007		29KNOW-B 6/22/2007		29KNOW-1 2/2/2008	
		µg/m ³		µg/m ³		µg/m ³	
		ppbv		ppbv		ppbv	
		< 0.20		0.10 J		0.10 J	
		< 1.3		0.63 J		< 1.3	
		< 0.20		0.63 J		< 0.20	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-38a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

31-33 Knowlton Street

Somerville, Massachusetts

Sample Location:		31-33 Knowlton Street	
Sample Name:		31 KNOW-SS2	
Sample Date:		3/5/2007	
Analyte	Method	Units:	Units:
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE)	TO-15	µg/m ³	ppbv
		2.6	0.39

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-38b

Chemical Testing Results - Indoor Air Sampling

31-33 Knowlton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		31-33 Knowlton Street					
		33KNOWLTON-B 1/22/2007	33Know-1 1/22/2007	045162-31 Know-B 4/20/2007	31 Know-1 4/20/2007		
Analyte	Method	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	ppbv	ppbv
Volatile Organic Compounds (VOCs)	TO-15						
Carbon tetrachloride		< 1.3	< 1.3	< 0.63 J	< 1.3	< 0.10 J	< 0.20
Tetrachloroethene (PCE)		3.0	< 1.4	33	1.4	4.8	0.2

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling

Somerville, Massachusetts

Sample Location:		31-33 Knowlton Street											
Sample Name:		31KNOWB 8/6/2007		31KNOW1 8/6/2007		31KNOW-B 11/12/2007		31KNOW-1 11/12/2007		31-33KNOW-B 2/6/2008		31-33KNOW-1 2/6/2008	
Sample Date:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Units:												
Method													
TO-15													
Volatile Organic Compounds (VOCs)													
Carbon tetrachloride		< 0.69 J < 1.4	< 0.11 J < 0.20	< 1.3 < 1.4	< 0.20 < 0.20	0.62 J < 1.4	0.099 J < 0.20	< 1.3 < 1.4	< 0.20 < 0.20	< 1.3 4.9	< 0.20 0.72	< 1.3 1.9	< 0.20 0.28
Tetrachloroethene (PCE)													

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-39a
Chemical Testing Results - Sub-Slab Soil Vapor Sampling
32 Knowlton Street
Somerville, Massachusetts

32 Knowlton Street - All samples non-detect 5/16/07

Table 3-39b
Chemical Testing Results - Indoor Air Sampling
32 Knowlton Street
Somerville, Massachusetts

32 Knowlton Street - No Indoor Air Sampling

Table 3-40a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
 35-37 Knowlton Street
 Somerville, Massachusetts

Sample Location:		35-37 Knowlton Street			
Sample Name:		35 Know-SS1 3/19/07		35 Know-SS2 3/19/07	
Sample Date:					
Units:					
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)					
1,1-Dichloroethane	TO-15	502	124	619	153
1,1-Dichloroethene		749	189	1100	277
cis-1,2-Dichloroethene		249	62.9	390	98.3
Tetrachloroethene (PCE)		16400	2420	21600	3190
1,1,1-Trichloroethane		198	36.2	366	67.0
Trichloroethene (TCE)		3050	567	3740	696

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-40b

Chemical Testing Results - Indoor Air Sampling

35-37 Knowlton Street

Somerville, Massachusetts

Sample Location:	
35-37 Knowlton Street	
Sample Name:	
37 KNOWLTON-B	
Sample Date:	
1/23/2007	
Analyte	Units:
Method	
TO-15	
Volatile Organic Compounds (VOCs)	
Carbon tetrachloride	0.69 J
Dichloroethane, 1,1-	7.3
Dichloroethene, cis-1,2-	3.4
Dichloroethene, 1,1-	6.7
Tetrachloroethene (PCE)	163
Trichloroethane, 1,1,1-	2.0
Trichloroethene (TCE)	20
	0.11 J
	1.8
	0.86
	1.7
	24.0
	0.37
	3.8

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-41a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

4 Morton Street
Somerville, Massachusetts

Sample Location:		4 Morton Street	
Sample Name:		4MORT-SS2	
Sample Date:		6/27/2007	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
Tetrachloroethene (PCE)	TO-15	38300	5650
1,1,1-Trichloroethane		401	73.5
Trichloroethene (TCE)		169	31.4

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-41b

**Chemical Testing Results - Indoor Air Sampling
4 Morton Street
Somerville, Massachusetts**

4 Morton Street - No Indoor Air Sampling

Table3-42a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

6-8 Morton Street

Somerville, Massachusetts

Sample Location:		6-8 Morton Street			
Sample Name:		8Mort-SS1		8Mort-SS2	
Sample Date:		4/20/2007		4/20/2007	
Analyte	Method	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15				
Tetrachloroethene (PCE)		16	2.3	3.9	0.58

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-42b

Chemical Testing Results - Indoor Air Sampling

6-8 Morton Street
Somerville, Massachusetts

Sample Location:		6-8 Morton Street											
Analyte	Method	6MORT-B 6/18/2007		6MORT-1 6/18/2007		6-8MORT-B 11/7/2007		6-8MORT-1 11/7/2007		6MORT-B 2/7/2008		6MORT-1 2/7/2008	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
		Units:											
Volatile Organic Compounds (VOCs) Carbon tetrachloride Tetrachloroethene (PCE)	TO-15	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
		1.4	0.20	< 1.4	< 0.20	3.1	0.45	1.2 J	< 0.20	1.2 J	0.17 J	< 1.4	< 0.20

Table 3-43a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

7 Morton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units: Analyte Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE)	7 Morton Street	
	7Mort-SS1	
	5/8/2007	
	µg/m³	ppbv
	6.4	0.94

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-43b

Chemical Testing Results - Indoor Air Sampling

7 Morton Street
Somerville, Massachusetts

Sample Location:		7 Morton Street											
Sample Name:		7MORT-1 6/20/2007		7MORT-B 6/20/2007		7MORT-1 11/13/2007		7MORT-B 11/13/2007		7MORT-1 2/20/2008		7MORT-B 2/20/2008	
Sample Date:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Units:													
Method													
Analyte													
Volatile Organic Compounds (VOCs)													
Carbon tetrachloride		0.62 J	0.099 J	0.82 J	0.13 J	0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	0.45 J	0.11 J	< 0.81	< 0.20	0.30 J	0.073 J	< 0.81	< 0.20
Tetrachloroethene (PCE)		0.95 J	0.14 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-44a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
 10 Morton Street
 Somerville, Massachusetts

Sample Location: 10 Morton Street				
Sample Name: Sample Date:		10MORT-SS1 5/9/2007		10MORT-SG1 5/9/2007
		µg/m ³	ppbv	µg/m ³
Analyte	Method	Units:		ppbv
Volatile Organic Compounds (VOCs) Tetrachloroethene (PCE) 1,1,1-Trichloroethane	TO-15			
		< 1.4	< 0.20	4.0
		0.87 J	0.16 J	1.2
				0.59
				0.22

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Indoor Air Sampling

Somerville, Massachusetts

Sample Location:		10 Morton Street											
Sample Name:		10MORT 1		10MORT B		10MORT-1		10MORT-B		10MORT-1		10MORT-B	
Sample Date:		8/10/2007		8/10/2007		11/12/2007		11/12/2007		2/21/2008		2/21/2008	
Units:		ppbv		µg/m ³		ppbv		µg/m ³		ppbv		µg/m ³	
Method													
Analyte													
Volatile Organic Compounds (VOCs)													
Carbon tetrachloride		0.63 J	0.10 J	< 1.3	< 0.20	0.69 J	0.11 J	0.62 J	0.099 J	0.63 J	0.10 J	< 1.3	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	2.2	0.33	< 1.4	< 0.20	< 1.4	< 0.20	2.2	0.32	12	1.8
Trichloroethane, 1,1,1-		< 1.1	< 0.20	4.3	0.79	< 1.1	< 0.20	0.60 J	0.11 J	< 1.1	< 0.20	0.47 J	0.087 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-45a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

11 Morton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		11 Morton Street			
		11 MORT-SS1 3/21/2007		11 MORT-SS2 3/21/2007	
		$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
1,1-Dichloroethane		0.85	0.21	< 0.81	< 0.20
1,1-Dichloroethene		1.2	0.31	< 0.79	< 0.20
Tetrachloroethene (PCE)		403	59.5	1.6	0.23
1,1,1-Trichloroethane		8.2	1.5	< 1.1	< 0.20
Trichloroethene (TCE)		9.7	1.8	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Table 3-45b
Chemical Testing Results - Indoor Air Sampling
11 Morton Street
Somerville, Massachusetts

11 Morton Street				
Sample Location: Sample Name: Sample Date: Units: Method	11 MORT-1 6/5/2007		11 MORT-B 6/5/2007	
	µg/m³	ppbv	µg/m³	ppbv
	0.61 J 8.1 4.5	0.097 J 1.2 0.84	0.63 J 3.0 < 1.1	0.10 J 0.44 < 0.20
Volatile Organic Compounds (VOCs)				
Carbon Tetrachloride				
Tetrachloroethene (PCE)				
Trichloroethene (TCE)				

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-46a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

12 Morton Street

Somerville, Massachusetts

Sample Location:		12 Morton Street	
Sample Name:		12MORT-SS1	
Sample Date:		5/29/2007	
Analyte	Method	Units:	Units:
Volatiles Organic Compounds (VOCs)	TO-15		
Tetrachloroethene (PCE)		1010	149
		µg/m ³	ppbv

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv.= parts per billion by volume.

Table 3-46b

Chemical Testing Results - Indoor Air Sampling

**12 Morton Street
Somerville, Massachusetts**

12 Morton Street - All Indoor Air Sampling Post-EPEM Installation

Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling
12 Morton Street
Somerville, Massachusetts

General Notes:

- Qualifying Note:**

May 2008

Table 3-46c

Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling

12 Morton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		12 Morton Street (continued)																	
		12MORT-1A 3/21/2008		12MORT-1B 3/21/2008		12MORT-B1 3/21/2008		12MORT-B2 3/21/2008											
		μg/m ³		ppbv		μg/m ³		ppbv		μg/m ³		ppbv							
		Method																	
Analyte																			
Volatile Organic Compounds (VOCs) Carbon tetrachloride		TO-15		0.62 J		0.099 J		0.75 J		0.12 J		< 1.3		< 0.20		0.60 J		0.095 J	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-47a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

13 Morton Street

Somerville, Massachusetts

Sample Location:		13 Morton Street	
Sample Name:		13MORT-SS1	
Sample Date:		6/26/2007	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
1,1-Dichloroethane	TO-15	1.2	0.29
Tetrachloroethene (PCE)		1690	249
1,1,1-Trichloroethane		19	3.5
Trichloroethene (TCE)		8.6	1.6

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-47b
Chemical Testing Results - Indoor Air Sampling
13 Morton Street
Somerville, Massachusetts

13 Morton Street - No Indoor Air Sampling

Table 3-48a
Chemical Testing Results - Sub-Slab Soil Vapor Sampling
15 Morton Street
Somerville, Massachusetts

15 Morton Street - All analytes non detect 5/14/07

Table 3-48b

Chemical Testing Results - Indoor Air Sampling

15 Morton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date:		15 Morton Street			
		15MORT-1 2/27/2008		15MORT-B 2/27/2008	
		µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
Carbon tetrachloride		0.63 J	0.10 J	0.69 J	0.11 J
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4 J+	< 0.20 J+
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4 J+	< 0.20 J+
Trichloroethane, 1,1,2-		< 1.1	< 0.20	< 1.1 J+	< 0.20 J+
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1 J+	< 0.20 J+

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 3-49a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
 18 Morton Street
 Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		18 Morton Street			
Method		18 MORT-SS1 3/19/2007		18 MORT-SS2 3/19/2007	
Analyte		µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)					
1,1-Dichloroethane	TO-15	< 0.81	< 0.20	2.6	0.64
1,1-Dichloroethene		< 0.79	< 0.20	69.4	17.5
Tetrachloroethene (PCE)		6.8	1.0	1180	174
1,1,1-Trichloroethane		< 1.1	< 0.20	27	4.9
Trichloroethene (TCE)		< 1.1	< 0.20	97.3	18.1

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Table 3-49b

Chemical Testing Results - Indoor Air Sampling

**18 Morton Street
Somerville, Massachusetts**

18 Morton Street - All Indoor Air Sampling Post-EPEM Installation

Table 3-49c

Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling
 18 Morton Street
 Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date: Units: Method	18 Morton Street					
		18MORT-B 7/24/2007		18MORT-B 11/5/2007		18MORT-B 2/4/2008	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
		< 1.3 1.4	< 0.20 0.2	0.60 J < 1.4	0.095 J < 0.20	< 1.3 < 1.4	< 0.20 < 0.20

Volatile Organic Compounds (VOCs)

Carbon tetrachloride

Tetrachloroethene (PCE)

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-50a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
19-19A Morton Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		19-19A Morton Street	
		19 Mort-SS1 4/18/07	19 Mort-SS2 4/18/07
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
		ppbv	ppbv
Analyte	Method		
Volatile Organic Compounds (VOCs)	TO-15		
Tetrachloroethene (PCE)		2.4 J	80.7
		0.35 J	11.9

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-50b

Chemical Testing Results - Indoor Air Sampling

19-19A Morton Street

Somerville, Massachusetts

19-19A Morton Street								
Location Name: Sample Name: Sample Date: Units: Method	19MORT-1 7/2/2007		19MORT-B 7/2/2007		19MORT-1 4/4/2008		19MORT-B 4/4/2008	
	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J
	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	0.68 J	0.10 J
Volatile Organic Compounds (VOCs)								
Carbon tetrachloride								
Tetrachloroethene (PCE)								

Table 3-51a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

21 Morton Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		21 Morton Street	
		21 Mort-SS1A 3/28/07	21 Mort-SS2A 3/28/07
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Analyte	Method	ppbv	ppbv
Volatile Organic Compounds (VOCs)			
Tetrachloroethene (PCE)		0.45	2.0
1,1,1-Trichloroethane		0.12 J	28.2

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-51b
Chemical Testing Results - Indoor Air Sampling
21 Morton Street
Somerville, Massachusetts

21 Morton Street - All analytes non-detect 5/15/07

Table 3-52a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

9 Tufts Street

Somerville, Massachusetts

9 Tufts Street - No Sub-Slab Sampling

Table 3-52b
Chemical Testing Results - Indoor Air Samples
9 Tufts Street
Somerville, Massachusetts

Location Name:		Bsm		Fst Floor		BsmR9Tufts		FFL9Tufts		FFR9Tufts	
Sample Name:		IA-6 (B)		IA-5 (1)		9TUFTS-BR		9TUFTS-1L		9TUFTS-1R	
Sample Date:		2/23/2005		2/23/2005		3/23/2006		3/23/2006		3/23/2006	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method										
TO-15											
Volatile Organic Compounds (VOCs)											
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Chloroethane		< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20
Chloroform		0.54 J	0.11 J	1.2	0.25	1.3	0.26	0.78 J	0.16 J	< 0.98	< 0.20
Chloromethane		0.91	0.44	1.0	0.49	1.1 L	0.53 L	1.4 L	0.69 L	1.4 L	0.69 L
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Methylene chloride		0.56 J	0.16 J	0.59 J	0.17 J	1.9 M	0.55 M	1.8 M	0.52 M	1.3 M	0.36 M
Tetrachloroethene (PCE)		1.3 J	0.19 J	1.8	0.27	2.4	0.35	< 1.4	< 0.20	0.95 J	0.14 J
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.
- M The reporting limit is elevated due to a detection of the analyte in a method blank sample.

Table 3-52b
Chemical Testing Results - Indoor Air Samples
9 Tufts Street
Somerville, Massachusetts

Analyte	Location Name:		Bsm9Tufts		FFL9Tufts		FFR9Tufts		BsmR9Tufts		FFL9Tufts	
	Sample Name:		9TUFTS-BR		9TUFTS-1L		9TUFTS-1R		9TUFTS-BR		9TUFTS-1L	
	Sample Date:		7/24/2006		7/24/2006		7/24/2006		10/2/2006		10/2/2006	
Units:			µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Method												
Volatile Organic Compounds (VOCs)	TO-15											
	Carbon tetrachloride	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	
	Chloroethane	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	
	Chloroform	1.2	0.24	0.88 J	0.18 J	2.3	0.47	NT	NT	NT	NT	
	Chloromethane	0.95	0.46	1.0	0.49	1.1	0.55	NT	NT	NT	NT	
	Dichloroethane, 1,2-	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	
	Methylene chloride	11 M	3.1 M	4.2 M	1.2 M	6.6 M	1.9 M	NT	NT	NT	NT	
	Tetrachloroethene (PCE)	3.1	0.45	1.2 J	0.18 J	2.0	0.29	16	2.4	3.5	0.52	
	Trichloroethane, 1,1,1-	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	
	Trichloroethene (TCE)	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "≤" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.
- M The reporting limit is elevated due to a detection of the analyte in a method blank sample.

Table 3-52b
Chemical Testing Results - Indoor Air Samples
9 Tufts Street
Somerville, Massachusetts

Analyte	Location Name: Sample Name: Sample Date: Units:	FFR9Tufts		Bsmt9Tufts		Bsmt9Tufts		FFR9Tufts	
		9TUFTS-1R 10/2/2006		9 TUFTS-BR 12/15/2006		9 TUFTS-1L 12/15/2006		9 TUFTS-1R 12/15/2006	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	Method	TO-15							
Carbon tetrachloride		< 1.3	< 0.20	0.75 J	0.12 J	0.62 J	0.099 J	0.59 J	0.093 J
Chloroethane		< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20
Chloroform		NT	NT	NT	NT	NT	NT	NT	NT
Chloromethane		NT	NT	NT	NT	NT	NT	NT	NT
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Methylene chloride		NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene (PCE)		6.2	0.91	2.2	0.32	1.9	0.28	0.64 J	0.095 J
Trichloroethane, 1,1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.
- M The reporting limit is elevated due to a detection of the analyte in a method blank sample.

Table 3-53a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

11-13 Tufts Street

Somerville, Massachusetts

11-13 Tufts Street - No Sub-Slab Sampling

Table 3-53b
Chemical Testing Results - Indoor Air Sampling
11-13 Tufts Street
Somerville, Massachusetts

Sample Location:		11-13 Tufts Street							
Sample Name:		IA-2 (B) 2/23/2005 Shaw		IA-2D (Duplicate) 2/23/2005 Shaw		IA-1 (1) 2/23/2005 SHAW		11/13TUFTS-B 3/24/2006 GEI	
Sample Date:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Collected By:									
Analyte	Method	Units:							
Volatile Organic Compounds (VOCs)		TO-15							
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Chloroform		< 0.98	< 0.20	< 0.98	< 0.20	2.8	0.57	< 0.98	< 0.20
Chloromethane		0.81	0.39	0.74	0.36	0.99	0.48	1.4 L	0.68 L
Methylene chloride		1.0	0.29	0.90	0.26	0.8	0.23	4.5 J+	1.3 J+
Tetrachloroethene (PCE)		1.8	0.26	1.9	0.28	1.0 J	0.15 J	< 1.4	< 0.20
Trichloroethane,1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "L" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-53b

Chemical Testing Results - Indoor Air Sampling

11-13 Tufts Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		11-13 Tufts Street (continued)					
		11/13 TUFTS-1 3/24/2006 GEI		11/13 TUFTS-B 6/29/2006 GEI		11/13 TUFTS-1 6/29/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:					
Volatile Organic Compounds (VOCs)	TO-15						
Carbon tetrachloride		< 1.3	< 0.20	0.69 J	0.11 J	0.69 J	0.11 J
Chloroform		< 0.98	< 0.20	< 0.98	< 0.20	1.5	0.30
Chloromethane		1.4 L	0.70 L	1.7	0.80	2.7	1.3
Methylene chloride		1.2 J+	0.34 J+	5.2 J+	1.5 J+	2.7 J+	0.77 J+
Tetrachloroethene (PCE)		< 1.4	< 0.20	2.4	0.36	1.8	0.27
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	0.71 J	0.13 J
						0.88 J	0.13 J
						< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-53b

Chemical Testing Results - Indoor Air Sampling

11-13 Tufts Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		11-13 Tufts Street (continued)					
		11/13 TUFTS-1 9/28/2006 GEI		11/13 TUFTS-B 12/15/2006 GEI		11/13 TUFTS-1 12/15/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:					
Volatile Organic Compounds (VOCs)	TO-15						
Carbon tetrachloride		< 1.3	< 0.20	0.69 J	0.11 J	0.62 J	0.099 J
Chloroform		NT	NT	NT	NT	NT	NT
Chloromethane		NT	NT	NT	NT	NT	NT
Methylene chloride		NT	NT	NT	NT	NT	NT
Tetrachloroethene (PCE)		1.5	0.22	2.2	0.33	< 1.4	< 0.20
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-54a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

17 Tufts Street

Somerville, Massachusetts

17 Tufts Street - No Sub-Slab Sampling

Table 3-54b
Chemical Testing Results - Indoor Air Sampling
17 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		17 Tufts Street									
		IA-11 (B) 3/24/2005 SHAW		IA-12 (1) 3/24/2005 SHAW		17TUFTS-B 3/24/2006 GEI		17TUFTS-C 3/24/2006 GEI		17TUFTS-1 3/24/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:									
Volatile Organic Compounds (VOCs)											
Carbon tetrachloride	TO-15	NT	NT	NT	NT	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Chloroform		1.1	0.23	1.9	0.39	< 0.98	< 0.20	< 0.98	< 0.20	< 0.98	< 0.20
Chloromethane		0.97	0.47	1.1	0.52	1.2 L	0.58 L	1.4 L	0.69 L	1.7 L	0.80 L
Methylene chloride		1.5	0.43	1.0	0.3	59.1 L	17.0 L	57.3 L	16.5 L	4.2 J+	1.2 J+
Tetrachloroethene (PCE)		8.8	1.3	4.7	0.69	1.3 J	0.19 J	1.4	0.21	2.9	0.43
Trichloroethene (TCE)		0.91 J	0.17 J	< 1.1	< 0.20	< 1.1	< 0.20	0.70 J	0.13 J	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-54b
Chemical Testing Results - Indoor Air Sampling
17 Tufts Street
Somerville, Massachusetts

17 Tufts Street (continued)											
Sample Location:		17TUFTS-B 10/2/2006 GEI		17TUFTS-C 10/2/2006 GEI		17TUFTS-1 10/2/2006 GEI		17 TUFTS-B 12/18/2006 GEI		17 TUFTS-C 12/18/2006 GEI	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method										
Volatile Organic Compounds (VOCs)											
Carbon tetrachloride	TO-15	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.52 J	0.083 J	0.57 J	< 1.3
Chloroform		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chloromethane		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene chloride		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene (PCE)		6.1	0.90	6.0	0.89	0.88 J	0.13 J	2.0	0.30	1.5	< 1.4
Trichloroethene (TCE)		7.0	1.3	7.0	1.3	< 1.1	< 0.20	0.70 J	0.13 J	< 1.1	< 0.20

Table 3-55a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

19 Tufts Street

Somerville, Massachusetts

19 Tufts Street - No Sub-Slab Sampling

Table 3-55b
Chemical Testing Results - Indoor Air Sampling
19 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		19 Tufts Street									
		IA-13 (B) 3/24/2005 SHAW		IA-14 (1) 3/24/2005 SHAW		19TUFTS-B 3/23/2006 GEI		19TUFTS-C 3/23/2006 GEI		19TUFTS-1 3/23/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:									
Volatile Organic Compounds (VOCs) Carbon tetrachloride Chloroform Chloromethane Methylene chloride Tetrachloroethene (PCE) Trichloroethene (TCE)	TO-15	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
		< 0.98	< 0.20	0.78 J	0.16 J	< 0.98	< 0.20	< 0.98	< 0.20	< 0.98	< 0.20
		0.85	0.41	1.1	0.52	1.8 L	0.88 L	1.8 L	0.85 L	21.7 L	10.5 L
		0.35 J	0.1 J	0.34 J	0.099 J	3.2 J+	0.92 J+	4.2 J+	1.2 J+	4.2 J+	1.2 J+
		3.2	0.47	0.95 J	0.14 J	7.5	1.1	6.6	0.98	1.2	0.18
		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-55b

Chemical Testing Results - Indoor Air Sampling

19 Tufts Street

Somerville, Massachusetts

19 Tufts Street (continued)							
Sample Location:		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Sample Name:		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Sample Date:		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Collected By:		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Units:		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Method		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Analyte		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Volatile Organic Compounds (VOCs)		19 TUFTS-B 6/29/2006 GEI		19 TUFTS-C 6/29/2006 GEI		19 TUFTS-1 6/29/2006 GEI	
Carbon tetrachloride		0.69 J	0.11 J	0.69 J	0.11 J	0.69 J	0.11 J
Chloroform		0.83 J	0.17 J	0.88 J	0.18 J	5.4	1.1
Chloromethane		3.1	1.5	< 0.41	< 0.20	2.3	1.1
Methylene chloride		14 J+	4.0 J+	13 J+	3.6 J+	14 J+	4.1 J+
Tetrachloroethene (PCE)		4.1	0.60	3.8	0.56	2.4	0.35
Trichloroethene (TCE)		2.1	0.39	1.6	0.30	1.7	0.31

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-55b
Chemical Testing Results - Indoor Air Sampling
19 Tufts Street
Somerville, Massachusetts

19 Tufts Street (continued)											
Sample Location:		19 TUFTS-C 10/10/2006 GEI									
Sample Name:		19 TUFTS-1 10/10/2006 GEI									
Sample Date:		19 TUFTS-B 12/15/2006 GEI									
Collected By:		19 TUFTS-C 12/15/2006 GEI									
Units:		19 TUFTS-1 12/15/2006 GEI									
Method		19 TUFTS-B 12/15/2006 GEI									
Analyte		19 TUFTS-C 12/15/2006 GEI									
TO-15		19 TUFTS-1 12/15/2006 GEI									
Volatile Organic Compounds (VOCs)		19 TUFTS-B 12/15/2006 GEI									
Carbon tetrachloride		19 TUFTS-C 12/15/2006 GEI									
Chloroform		19 TUFTS-1 12/15/2006 GEI									
Chloromethane		19 TUFTS-B 12/15/2006 GEI									
Methylene chloride		19 TUFTS-C 12/15/2006 GEI									
Tetrachloroethene (PCE)		19 TUFTS-1 12/15/2006 GEI									
Trichloroethene (TCE)		19 TUFTS-B 12/15/2006 GEI									

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-56a

**Chemical Testing Results - Sub-Slab Soil Vapor Sampling
23 Tufts Street
Somerville, Massachusetts**

23 Tufts Street - No Sub-Slab Sampling

Table 3-56b
Chemical Testing Results - Indoor Air Sampling
23 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		23 Tufts Street					
		IA-8 (B) 2/23/2005 SHAW		IA-7 (1) 2/23/2005 SHAW		23TUFTS-B 3/24/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:					
Volatile Organic Compounds (VOCs)	TO-15						
Chloroform		0.88 J	0.18 J	0.63 J	0.13 J	< 0.98	< 0.20
Chloromethane		1.1	0.54	0.97	0.47	1.7 L	0.82 L
Methylene chloride		0.49 J	0.14 J	0.52 J	0.15 J	2.0 J+	0.77 J+
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
1,2-Dichloroethane		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Tetrachloroethene (PCE)		2.3	0.34	1.6	0.23	2.8	< 0.20
1,1,1-Trichloroethane		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-56b
Chemical Testing Results - Indoor Air Sampling
23 Tufts Street
Somerville, Massachusetts

Analyte	23 Tufts Street (continued)					
	Sample Location:		23 TUFTS-B 6/28/2006 GEI		23 TUFTS-1 6/28/2006 GEI	
	Sample Name:	Sample Date:	Collected By:	Units:	Method	23TUFTS-B 8/3/2006 GEI
Volatile Organic Compounds (VOCs)						
Chloroform	3.7	0.76	13	2.7	NT	NT
Chloromethane	1.9	0.91	1.6	0.78	NT	NT
Methylene chloride	2.4 J+	0.70 J+	396 L	114 L	NT	NT
Carbon tetrachloride	< 1.3	< 0.20	0.94 J	0.15 J	0.69 J	0.11 J
1,2-Dichloroethane	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Tetrachloroethene (PCE)	125	18.5	94.9	14.0	10	1.4
1,1,1-Trichloroethane	1.5	0.28	1.0 J	0.19 J	0.60 J	< 0.20
Trichloroethene (TCE)	1.0 J	0.19 J	0.64 J	0.12 J	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-56b
Chemical Testing Results - Indoor Air Sampling
23 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		23 Tufts Street (continued)							
		23TUFTS-B 10/2/2006 GEI		23TUFTS-1 10/2/2006 GEI		23 TUFTS-1 12/18/2006 GEI		23 TUFTS-B 12/18/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
		Units:							
Analyte	Method								
Volatile Organic Compounds (VOCs)									
Chloroform	TO-15	NT	NT	NT	NT	NT	NT	NT	NT
Chloromethane		NT	NT	NT	NT	NT	NT	NT	NT
Methylene chloride		NT	NT	NT	NT	NT	NT	NT	NT
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	0.58 J	0.092 J
1,2-Dichloroethane		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Tetrachloroethene (PCE)		6.8	1.0	4.1	0.60	54	8.0	46	6.8
1,1,1-Trichloroethane		< 1.1	< 0.20	< 1.1	< 0.20	0.51 J	0.093 J	0.71 J	0.13 J
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	0.54 J	0.10 J	0.19 J	0.093 J

Table 3-56c
Chemical Testing Results - Post-EPEM Installation Indoor Air Sampling
23 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		23 Tufts Street											
		23TUFTS-B 5/26/2007 GEI		23TUFTS-1 5/26/2007 GEI		23TUFTS-B 11/17/2007 GEI		23TUFTS-1 11/17/2007 GEI		23TUFTS-B 2/1/2008 GEI		23TUFTS-1 2/1/2008 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:											
Volatile Organic Compounds (VOCs)	TO-15												
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	0.75 J	0.12 J	< 1.3	< 0.20	0.59 J	0.094 J
1,2-Dichloroethane		< 0.81	< 0.20	< 0.81	< 0.20	0.26 J	0.064 J	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
1,1,1-Trichloroethane		0.54 J	0.099 J	0.51 J	0.093 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-57a
Chemical Testing Results - Sub-Slab Soil Vapor Sampling
25 Tufts Street
Somerville, Massachusetts

25 Tufts Street - No Sub-Slab Sampling

Table 3-57b
Chemical Testing Results - Indoor Air Sampling
25 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		25 Tufts Street									
		IA-4 (B) 2/23/2005 SHAW		IA-3 (1) 2/23/2005 SHAW		25TUFTS-B 3/23/2006 GEI		25TUFTS-1 3/23/2006 GEI		25TUFTS-B 8/1/2006 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Units:		Units:		Units:		Units:		Units:	
Volatile Organic Compounds (VOCs) Carbon tetrachloride Chloroform Chloromethane Methylene chloride Tetrachloroethene (PCE)	TO-15	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
		< 0.98	< 0.20	2	0.4	< 0.98	< 0.20	< 0.98	< 0.20	NT	NT
		0.74	0.36	0.95	0.46	1.1 L	0.52 L	1.1 L	0.54 L	NT	NT
		0.49 J	0.14 J	< 1.4 J+	< 0.20 J+	1.6 J+	0.47 J+	1.9 J+	0.54 J+	NT	NT
		1.6	0.23	< 1.1	< 0.20	3.2	0.47	1.7	0.25	3.9	0.57

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-57b
Chemical Testing Results - Indoor Air Sampling
25 Tufts Street
Somerville, Massachusetts

25 Tufts Street (continued)									
Sample Location:									
Sample Name:									
Sample Date:									
Collected By:									
Units:									
Method									
TO-15									
Volatile Organic Compounds (VOCs)									
Carbon tetrachloride		25TUFTS-1 8/1/2006 GEI		25TUFTS-B 10/2/2006 GEI		25TUFTS-1 10/2/2006 GEI		25 TUFTS-B 12/15/2006 GEI	
Chloroform		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Chloromethane		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.63 J	0.10 J
Methylene chloride		NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene (PCE)		NT	NT	NT	NT	NT	NT	NT	NT
		2.0	0.29	4.2	0.62	< 1.4	< 0.20	1.7	0.25

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-58a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

27 Tufts Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By: Units:		27 Tufts Street			
		27Tufts-SS1 3/9/2007 GEI		27Tufts-SS2 3/9/2007 GEI	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)					
Carbon tetrachloride	TO-15	< 1.3	< 0.20	0.69 J	0.11 J
Tetrachloroethene (PCE)		180	26.5	41	6.1
1,1,1-Trichloroethane		3.9	0.71	0.50 J	0.091 J
Trichloroethene (TCE)		2.8	0.52	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-58b

Chemical Testing Results - Indoor Air Sampling

27 Tufts Street

Somerville, Massachusetts

Sample Location:		27 Tufts Street											
Sample Name:		IA-10 (B) 2/23/2005 SHAW		IA-9 (1) 2/23/2005 SHAW		27TUFTS-B 3/23/2006 GEI		27TUFTS-1 3/23/2006 GEI		27 TUFTS-B 6/28/2006 GEI		27 TUFTS-1 6/28/2006 GEI	
Sample Date:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Collected By:													
Units:													
Method													
Analyte													
Volatile Organic Compounds (VOCs)													
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20
Chloroethane		< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20
Chloromethane		0.6	0.29	1.2	0.59	2.9 L	1.4 L	110 L	53.5 L	1.3	0.65	1.6	0.79
Methylene chloride		0.49 J	0.14 J	0.52 J	0.15 J	4.2 J+	1.2 J+	2.0 J+	0.59 J+	2.1 J+	0.60 J+	2.2 J+	0.63 J+
Tetrachloroethene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	117	17.3	3.8	0.56
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	1.0 J	0.19 J	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "c" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Table 3-58b

Chemical Testing Results - Indoor Air Sampling

27 Tufts Street

Somerville, Massachusetts

27 Tufts Street (continued)													
Sample Location: Sample Name: Sample Date: Collected By:		27TUFTS-B 8/3/2006 GEI		27TUFTS-1 8/3/2006 GEI		27TUFTS-B 9/28/2006 GEI		27TUFTS-1 9/28/2006 GEI		27 TUFTS-B 12/18/2006 GEI		27 TUFTS-1 12/18/2006 GEI	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method												
Volatile Organic Compounds (VOCs)	TO-15												
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	0.60 J	0.096 J
Chloroethane		< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	1.8	0.70	< 0.53	< 0.20
Chloromethane		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene chloride		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene (PCE)		1.6	0.23	0.81 J	< 0.12 J	38	5.6	12	1.8	37	5.5	4.9	0.72
Trichloroethane, 1,1,1-		< 1.1	< 0.20	< 1.1	< 0.20	0.55 J	0.10 J	< 1.1	< 0.20	0.38 J	0.069 J	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	0.45 J	0.083 J	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. NT = Not Tested.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- L The reported result is estimated because the calculated relative percent difference (RPD) between a sample and the matrix duplicate was above the quality control limit specified by GEI.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

Sample Location:		49 Tufts Street
Sample Name:		49 TUFTS-SS1
Sample Date:		6/9/2007
Collected By:		GEI
Units:		
Analyte	Method	µg/m ³
Volatile Organic Compounds (VOCs)	TO-15	ppbv
Carbon tetrachloride		1.1 J
Tetrachloroethene (PCE)		43
1,1,1-Trichloroethane		17
		0.17 J
		6.4
		3.1

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-59b

Chemical Testing Results - Indoor Air Sampling

49 Tufts Street

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		49 Tufts Street			
		49TUFTS-1 9/6/2007 GEI		49TUFTS-B 9/6/2007 GEI	
		$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method	Units:			
Volatile Organic Compounds (VOCs)	TO-15				
Carbon tetrachloride		1.0 J	0.16 J	0.94 J	0.15 J
1,2-Dichloroethane		0.45 J	0.11 J	< 0.81	< 0.20
Tetrachloroethene (PCE)		1.8	0.27	1.8	0.27
1,1,1-Trichloroethane		0.60 J	0.11 J	0.42 J	0.077 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-60a
Chemical Testing Results - Sub-Slab Soil Vapor Sampling
53 Tufts Street
Somerville, Massachusetts

Sample Location:		53 Tufts Street	
Sample Name:		53TUFTS-SS1	53TUFTS-SS2
Sample Date:		5/9/2007	5/9/2007
Collected By:		GEI	GEI
Analyte	Units:		
Method			
TO-15			
Volatile Organic Compounds (VOCs)			
Tetrachloroethene (PCE)			
	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$
	3.5	0.52	1.0 J
			ppbv
			0.15 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-60b
Chemical Testing Results - Indoor Air Sampling
53 Tufts Street
Somerville, Massachusetts

Sample Location:		53 Tufts Street	
Sample Name:		53TUFTS-B	53TUFTS-B
Sample Date:		11/9/2007	2/15/2008
Collected By:		GEI	GEI
Units:			
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
Carbon tetrachloride		0.75 J	0.12 J
		$\mu\text{g}/\text{m}^3$	ppbv
		0.69 J	0.11 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

J The reported result is below the laboratory reporting limit and is estimated.

May 2008

Table 3-61a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

60 Tufts Street

Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date: Collected By: Units: Method	60 Tufts Street (continued)							
		60 TUFT-4-SS2 4/4/2007 GEI		60TUFTS#4-SS1 11/9/2007 GEI		60TUFTS#4-SS2 11/9/2007 GEI		60TUFT-SS10 1/16/2008 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)									
Carbon tetrachloride	TO-15	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	1.3	0.33
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	3.7	0.93
Tetrachloroethene (PCE)		29	4.3	213	31.4	63	9.3	895	132
Trichloroethane, 1,1,1-		181	33.1	170	31.1	237	43.4	14	2.5
Trichloroethane, 1,1,2-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	226 G	42.1 G

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.
- G Duplicate precision outside control limits.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
60 Tufts Street
Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

J The reported result is below the laboratory reporting limit and is estimated.

G Duplicate precision outside control limits.

Table 3-61a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

60 Tufts Street

Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date: Collected By:	60 Tufts Street (continued)					
		60TUFT-UNIT4-SS1 1/16/2008 GEI		SVT-MW202 1/16/2008 GEI		60TUFT-SS13 1/17/2008 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Units:							
Method							
TO-15							
Volatile Organic Compounds (VOCs)							
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	1.3	0.32
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethene, 1,1-		0.79	0.20	0.79	0.2	23	5.7
Tetrachloroethene (PCE)		252	37.1	252	37.1	249	36.7
Trichloroethane, 1,1,1-		200	36.7	28	5.1	1010	186
Trichloroethane, 1,1,2-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	11	2.0	4.6	0.86
						152	28.3

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.
- G Duplicate precision outside control limits.

Table 3-61a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

60 Tufts Street

Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date: Collected By:	60 Tufts Street (continued)								
		60TUFT-SS16 1/17/2008 GEI		60TUFT-SS10 1/17/2008 GEI		60TUFT-STORAGES- 1/17/2008 GEI		60TUFT-UNIT4-SS1 1/17/2008 GEI		
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	
		Units:								
Method										
TO-15										
Volatile Organic Compounds (VOCs)										
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	0.67 J	0.17 J	< 0.79	< 0.20	< 0.79	< 0.20	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	1.4	0.35	11	2.9	< 0.79	< 0.20	< 0.20
Tetrachloroethene (PCE)		119	17.5	504	74.3	3.5	0.52	94.3	13.9	13.9
Trichloroethane, 1,1,1-		14	2.5	5.1	0.94	85.1	15.6	197	36.1	36.1
Trichloroethane, 1,1,2-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.20
Trichloroethene (TCE)		7.0	1.3	196	36.5	4.4	0.82	< 1.1	< 0.20	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J** The reported result is below the laboratory reporting limit and is estimated.
- G** Duplicate precision outside control limits.

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

J The reported result is below the laboratory reporting limit and is estimated.

May 2008

Table 3-61a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

60 Tufts Street

Somerville, Massachusetts

Analyte	Sample Location: Sample Name: Sample Date: Collected By: Units: Method	60 Tufts Street (continued)							
		60TUFT-SS16 1/21/2008 GEI		60TUFT-STORAGES 1/21/2008 GEI		60TUFT-UNIT4-SS1 1/21/2008 GEI		SVT-MW202 1/21/2008 GEI	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15								
Carbon tetrachloride		< 1.3	< 0.20	0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	1.1	0.28	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	77.7	19.6	< 0.79	< 0.20	0.56 J	0.14 J
Tetrachloroethene (PCE)		199	29.3	11	1.6	117	17.2	403	59.4
Trichloroethane, 1,1,1-		72.6	13.3	447	81.9	234	42.9	35	6.4
Trichloroethane, 1,1,2-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		12	2.2	16	2.9	< 1.1	< 0.20	15	2.7

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.
- G Duplicate precision outside control limits.

Table 3-61b

Chemical Testing Results - Indoor Air Sampling

60 Tufts Street, Units #4, #10 and #16

Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:		60 Tufts Street #4							
		60TUFTS-UNIT 4		60TUFTS-UNIT 4B		60TUFTS-UNIT 4-1		60TUFTS-UNIT 4B	
		1/23/2007		1/23/2007		2/20/2008		2/20/2008	
		GEI		GEI		GEI		GEI	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)	TO-15								
Carbon tetrachloride		0.75 J	0.12 J	0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	0.97	0.24	< 0.81	< 0.20
Tetrachloroethene (PCE)		5.8	0.85	4.4	0.65	2.4	0.36	2.0	0.29
Trichloroethane, 1,1,1-		11	2.1	14	2.6	1.5	0.27	1.9	0.35

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Chemical Testing Results - Indoor Air Sampling
60 Tufts Street, Units #4, #10 and #16
Somerville, Massachusetts

General Notes:

- Qualifying Note:**

04516-2
Page 2 of 2

Table 3-62a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
85 Washington Street
Somerville, Massachusetts

Sample Location:		85 Washington Street
Sample Name:		85 Wash-SS2
Sample Date:		3/29/07
Analyte	Method	Units:
Volatile Organic Compounds (VOCs)	TO-15	
1,2-Dichloroethane		µg/m ³
Tetrachloroethene (PCE)		ppbv
		0.53 J
		1.0 J
		0.13 J
		0.15 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-62b
Chemical Testing Results - Indoor Air Sampling
85 Washington Street
Somerville, Massachusetts

Sample Location:			85 Washington Street													
Analyte	Sample Name:		85WASH-2		85WASH-PARK		85WASH-AUDI									
	Sample Date:		11/14/2007		2/12/2008		2/12/2008									
	Units:		ppbv		µg/m³		ppbv									
Method		µg/m³		µg/m³		µg/m³		µg/m³								
Volatile Organic Compounds (VOCs) Carbon tetrachloride Tetrachloroethene (PCE)	TO-15		0.69 J 1.2 J		0.11 J 0.17 J		< 1.3 1.4		0.69 J < 1.4		0.11 J < 0.20		< 1.3 1.2 J		< 0.20 0.18 J	

Table 3-63a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

97 Washington Street

Somerville, Massachusetts

Analyte	Sample Location:	
	Sample Name:	
	Sample Date:	
	Units:	
Method		
TO-15		
Volatile Organic Compounds (VOCs)		
Tetrachloroethene (PCE)		
	97 WASH-SS1 4/23/2007	97WASH-SS2 4/23/2007
	µg/m ³	µg/m ³
	ppbv	ppbv
	2.3	1.8 J
	0.34	0.26 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-63b
Chemical Testing Results - Indoor Air Sampling
97 Washington Street
Somerville, Massachusetts

Analyte	97 Washington Street									
	Sample Location:		Sample Name:		Sample Date:		Units:		Method	
	97WASH1		97WASHB		97WASH-1		97WASH-B		97WASH-1	
	6/14/2007	6/14/2007	6/14/2007	6/14/2007	11/5/2007	11/5/2007	11/5/2007	11/5/2007	2/5/2008	2/5/2008
Volatile Organic Compounds (VOCs)	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Carbon tetrachloride	0.69 J	0.11 J	0.69 J	0.11 J	0.60 J	0.096 J	0.63 J	0.10 J	< 1.3	< 0.20
Tetrachloroethene (PCE)	1.1 JG	0.16 JG	1.4 G	2.0 G	1.5	0.22	1.7	0.25	1.1 J	0.14 J
1,1,1-Trichloroethane	0.52 J	0.096 J	0.76 J	0.14 J	0.52 J	0.096 J	0.82 J	0.15 J	0.60 J	0.12 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "Z" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.
- G Duplicate precision outside control limits.

Table 3-64a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

103 Washington Street

Somerville, Massachusetts

Sample Location:		103 Washington Street	
Sample Name:		103WASH-SS1	
Sample Date:		5/8/2007	
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
Carbon tetrachloride	TO-15	0.69 J	0.11 J
trans-1,2-Dichloroethene		0.95	0.24
cis-1,2-Dichloroethene		15	3.7
Tetrachloroethene (PCE)		2330	343
1,1,1-Trichloroethane		1.0 J	0.19 J
Trichloroethene (TCE)		85.5	15.9

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-64b
Chemical Testing Results - Indoor Air Sampling
103 Washington Street
Somerville, Massachusetts

103 Washington Street - No Indoor Air Sampling

Table 3-65a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling
105-107 Washington Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		105-107 Washington Street			
		105WASH-SS1 5/8/2007		105WASH-SS2 5/8/2007	
		$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method				
Volatile Organic Compounds (VOCs)		TO-15			
Carbon tetrachloride		0.60 J	0.096 J	< 1.3	< 0.20
1,1-Dichloroethane		< 0.81	< 0.20	3.0	0.75
1,1-Dichloroethene		< 0.79	< 0.20	0.99	0.25
cis-1,2-Dichloroethene		< 0.79	< 0.20	58.3	14.7
Tetrachloroethene (PCE)		40	5.9	479	70.6
1,1,1-Trichloroethane		< 1.1	< 0.20	24	4.4
Trichloroethene (TCE)		0.91 J	0.17 J	53	9.8
Vinyl Chloride		< 0.51	< 0.20	0.61	0.24

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 3-65b

Chemical Testing Results - Indoor Air Sampling

**105-107 Washington Street
Somerville, Massachusetts**

105-107 Washington Street - No Indoor Air Sampling

Table 3-66a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

111 Washington Street

Somerville, Massachusetts

Sample Location:		111 Washington Street	
Sample Name:		111WASH-SS1	
Sample Date:		6/20/2007	
Units:			
Analyte	Method	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)			
Tetrachloroethene (PCE)	TO-15	1080	159
1,1,1-Trichloroethane		18	3.3
Trichloroethene (TCE)		87.6	16.3

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Table 3-66b
Chemical Testing Results - Indoor Air Sampling
111 Washington Street
Somerville, Massachusetts

111 Washington Street - No Indoor Air Sampling

Table 3-67a

Chemical Testing Results - Sub-Slab Soil Vapor Sampling

121 Washington Street

Somerville, Massachusetts

Sample Location:		121 Washington Street	
Sample Name:		121 Wash-SS1	
Sample Date:		4/11/07	
Analyte	Method	Units:	Units:
Volatile Organic Compounds (VOCs)	TO-15		
Tetrachloroethene (PCE)		µg/m ³	ppbv
1,1,1-Trichloroethane		12	1.7
		0.51 J	0.093 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 3-67b

Chemical Testing Results - Indoor Air Sampling

121 Washington Street

Somerville, Massachusetts

Analyte		Sample Location:							
		121 Washington Street							
		121WASH-1A		121WASH-1B		121WASH-1			
		11/6/2007		11/6/2007		2/11/2008			
Sample Name:		11/6/2007		11/6/2007		2/11/2008			
Sample Date:		11/6/2007		11/6/2007		2/11/2008			
Units:		µg/m³		ppbv		µg/m³		ppbv	
Method		µg/m³		ppbv		µg/m³		ppbv	
TO-15		0.82 J 1.5		0.13 J 0.22		0.88 J 1.4		0.14 J 0.20	
Volatile Organic Compounds (VOCs)		0.82 J 1.5		0.13 J 0.22		0.88 J 1.4		0.14 J 0.20	
Carbon tetrachloride		0.82 J 1.5		0.13 J 0.22		0.88 J 1.4		0.14 J 0.20	
Tetrachloroethene (PCE)		0.82 J 1.5		0.13 J 0.22		0.88 J 1.4		0.14 J 0.20	

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 4-1
Sub-Slab Depressurization System (SSDS)
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	Date:	4/30/2007		5/1/2007		5/3/2007		5/4/2007		5/5/2007		5/7/2007		5/10/2007		5/14/2007		5/18/2007	
		Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)
West Header		-4.59	--	--	--	--	--	--	--	--	--	--	--	-4.42	112	--	--	-4.48	72.5
Center Header		-4.63	--	--	--	--	--	--	--	--	--	--	--	-4.53	168	--	--	-4.59	137.4
East Header		-1.96	--	--	--	--	--	--	--	--	--	--	--	-1.94	507	--	--	-1.92	292
Combined Influent		-7.98	70	--	251	--	229	--	192	-0.94	169	--	201	-7.55	205	--	--	-8.18	153
Lead Carbon Effluent		--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	<-10.0	2.1
System Discharge		6.3	0	--	0	--	0	--	0	6.41	0.8	--	0	4.5	1.4	--	--	5.85	2.8
EP-W1		--	--	--	--	--	--	--	--	--	--	--	--	-4.05	900	--	--	--	--
EP-W2		--	--	--	--	--	--	--	--	--	--	--	--	-3.35	186.9	--	--	--	--
EP-W3		--	--	--	--	--	--	--	--	--	--	--	--	-2.74	26.2	--	--	--	--
EP-W4		--	--	--	--	--	--	--	--	--	--	--	--	-2.06	8.2	--	--	--	--
EP-W5		--	--	--	--	--	--	--	--	--	--	--	--	-1.71	4.4	--	--	--	--
EP-W6		--	--	--	--	--	--	--	--	--	--	--	--	-1.79	13.3	--	--	--	--
EP-W7		--	--	--	--	--	--	--	--	--	--	--	--	-1.76	13.7	--	--	--	--
EP-W8		-1.94	--	-1.92	--	--	--	--	--	--	--	--	--	-1.8	174	-1.6	--	--	--
EP-C1		--	--	--	--	--	--	--	--	--	--	--	--	-4.13	67.7	--	--	--	--
EP-C2		--	--	--	--	--	--	--	--	--	--	--	--	-4.13	440	--	--	--	--
EP-C3		--	--	--	--	--	--	--	--	--	--	--	--	-3.94	99	--	--	--	--
EP-C4		--	--	--	--	--	--	--	--	--	--	--	--	-3.73	2.16	--	--	--	--
EP-C5		--	--	--	--	--	--	--	--	--	--	--	--	-3.55	366	--	--	--	--
EP-C6		--	--	--	--	--	--	--	--	--	--	--	--	-3.31	10.7	--	--	--	--
EP-C7		--	--	--	--	--	--	--	--	--	--	--	--	-2.93	57.2	-2.64	--	--	--
EP-C8		-3.15	--	-3.11	--	--	--	--	--	--	--	--	--	-3.13	69.9	--	--	--	--
EP-C9		-3.21	--	-3.17	--	--	--	--	--	--	--	--	--	-3.17	162	--	--	--	--
EP-E1		--	--	--	--	--	--	--	--	--	--	--	--	-1.81	2.42	--	--	--	--
EP-E2		--	--	--	--	--	--	--	--	--	--	--	--	-1.8	72	--	--	--	--
EP-E3		--	--	--	--	--	--	--	--	--	--	--	--	-1.68	97.7	--	--	--	--
EP-E4		--	--	--	--	--	--	--	--	--	--	--	--	-1.71	23.4	--	--	--	--
EP-E5		-1.72	--	-1.74	--	--	--	--	--	--	--	--	--	-1.71	4.4	-1.61	--	--	--
SS3		-0.29	--	-0.29	--	--	--	--	--	--	--	--	--	-0.23	409	-0.255	--	--	--
SS4		-0.68	--	-0.65	--	--	--	--	--	--	--	--	--	-0.58	875	-0.592	--	--	--
SS20		--	--	--	--	--	--	--	--	--	--	--	--	-0.12	--	-0.098	--	--	--
SS21		--	--	--	--	--	--	--	--	--	--	--	--	-0.52	--	-0.486	--	--	--
SS22		--	--	--	--	--	--	--	--	--	--	--	--	-0.54	--	-0.489	--	--	--
SS23		--	--	--	--	--	--	--	--	--	--	--	--	-0.31	--	-0.304	--	--	--
SS24		--	--	--	--	--	--	--	--	--	--	--	--	-0.38	--	-0.396	--	--	--
SS25		--	--	--	--	--	--	--	--	--	--	--	--	-0.81	--	-0.772	--	--	--
SS26		--	--	--	--	--	--	--	--	--	--	--	--	-0.51	--	-0.448	--	--	--
SS27		--	--	--	--	--	--	--	--	--	--	--	--	-0.18	--	-0.152	--	--	--

- General Notes:**
1. The first day of SSDS operation was April 30, 2007.
 2. VOC = volatile organic compound.
 3. ppm = parts per million.
 4. in. w.c. = inches water column.
 5. "--" = not measured.
 6. NI = Not yet installed.
 7. The soil vapor extraction (SVE) system was started up on August 22, 2007.
 8. VOC concentrations were measured using a photoionization detector with a detection limit of 0.5 ppm.
 9. N/A = Not Applicable
 10. Carbon treatment system was adjusted to run at positive pressure on June 7, 2007.
 11. Refer to Figure 4-1 for the SSDS Monitoring locations.
- * Results obtained during SVE diagnostic test.

Table 4-1
Sub-Slab Depressurization System (SSDS)
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	Date:	5/25/2007		6/1/2007		6/3/2007		6/8/2007		6/12/2007		6/19/2007		6/26/2007		7/3/2007		7/10/2007	
		Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)
West Header		-4.37	53	-3.6	84.9	--	--	-4.85	56.5	-4.51	56.4	-4.55	63.7	-4.81	15.3	-4.65	73	-4.77	16.7
Center Header		-4.42	230.1	-3.65	180.4	--	--	-4.89	112.9	-4.57	116.1	-4.59	127.1	-4.87	40.3	-4.84	157.3	-4.87	33.8
East Header		-1.97	306	-1.64	593	--	--	-2.12	219.4	-1.98	296	-1.97	217.4	-2.02	64.8	-1.93	332	-1.98	66.8
Combined Influent		-7.57	126.7	-6.23	170.4	--	139	-8.57	98.6	-7.93	92.3	-8.01	100.5	-8.44	27.6	-8.45	138	-8.51	31.2
Lead Carbon Effluent		<-10	40.3	--	--	--	43	18.05	140	--	--	--	--	10.31	0	10.4	4.6	10.33	13.7
System Discharge		5.13	0.9	4.14	0	N/A	0	N/A	0	N/A	0.5	N/A	0.3	N/A	0	N/A	0	N/A	0
EP-W1		--	--	--	--	--	--	--	--	-4.207	365	-4.134	296	-4.441	157.7	--	--	--	--
EP-W2		--	--	--	--	--	--	--	--	-3.329	102.6	-3.323	111.9	-3.498	30.5	--	--	--	--
EP-W3		--	--	--	--	--	--	--	--	-2.697	11.3	-2.641	15.1	-2.801	3.1	--	--	--	--
EP-W4		--	--	--	--	--	--	--	--	-1.988	4.3	-1.937	5.8	-2.034	0.9	--	--	--	--
EP-W5		--	--	--	--	--	--	--	--	-1.632	1.6	-1.568	2	-1.661	0	--	--	--	--
EP-W6		--	--	--	--	--	--	--	--	-1.734	1.4	-1.678	1.8	-1.757	0	--	--	--	--
EP-W7		--	--	--	--	--	--	--	--	-1.675	4.1	-1.627	4	-1.713	0.5	--	--	--	--
EP-W8		--	--	--	--	--	--	--	--	-1.714	47.4	-1.669	53.4	-1.749	11.3	--	--	--	--
EP-C1		--	--	--	--	--	--	--	--	-4.192	17.8	-4.191	23.2	-4.453	5.4	--	--	--	--
EP-C2		--	--	--	--	--	--	--	--	-4.203	157.2	-4.22	140.7	-4.547	36.2	--	--	--	--
EP-C3		--	--	--	--	--	--	--	--	-3.985	80.9	-3.987	102.4	-4.238	28.6	--	--	--	--
EP-C4		--	--	--	--	--	--	--	--	-3.773	1653	-3.734	500	-3.994	273	--	--	--	--
EP-C5		--	--	--	--	--	--	--	--	-3.565	180.4	-3.55	177.9	-3.79	60.5	--	--	--	--
EP-C6		--	--	--	--	--	--	--	--	-3.287	2.8	-3.272	4.1	-3.494	0.3	--	--	--	--
EP-C7		--	--	--	--	--	--	--	--	-2.768	33.5	-2.767	44.1	-2.913	12.9	--	--	--	--
EP-C8		--	--	--	--	--	--	--	--	-3.082	54.4	-3.071	67.9	-3.224	14.4	--	--	--	--
EP-C9		--	--	--	--	--	--	--	--	-3.151	88.5	-3.127	101.2	--	--	--	--	--	--
EP-E1		--	--	--	--	--	--	--	--	-1.856	1179	-1.841	500	-1.903	111	--	--	--	--
EP-E2		--	--	--	--	--	--	--	--	-1.849	51	-1.813	53.5	-1.867	11.7	--	--	--	--
EP-E3		--	--	--	--	--	--	--	--	-1.738	10.2	-1.712	12.4	-1.761	1.8	--	--	--	--
EP-E4		--	--	--	--	--	--	--	--	-1.768	7	-1.735	9.5	-1.77	1.2	--	--	--	--
EP-E5		--	--	--	--	--	--	--	--	-1.757	2.3	-1.725	2.1	-1.779	0	--	--	--	--
SS3		--	--	--	--	--	--	--	--	-0.272	170.9	-0.287	114.3	-0.323	27.9	--	--	--	--
SS4		--	--	--	--	--	--	--	--	-0.773	1.6	-0.776	--	-0.827	25.5	--	--	--	--
SS20		--	--	--	--	--	--	--	--	-0.096	2158	-0.103	500	-0.115	434	--	--	--	--
SS21		--	--	--	--	--	--	--	--	-0.598	471	-0.598	259.7	-0.635	76.5	--	--	--	--
SS22		--	--	--	--	--	--	--	--	-0.572	1010	-0.573	335	-0.626	73.9	--	--	--	--
SS23		--	--	--	--	--	--	--	--	-0.345	17.6	-0.328	58.9	-0.367	12.9	--	--	--	--
SS24		--	--	--	--	--	--	--	--	-0.424	1.2	-0.425	0.4	-0.466	0.2	--	--	--	--
SS25		--	--	--	--	--	--	--	--	-0.803	532	-0.783	257.7	-0.821	66.5	--	--	--	--
SS26		--	--	--	--	--	--	--	--	-0.497	3.2	-0.472	1.9	-0.539	0.2	--	--	--	--
SS27		--	--	--	--	--	--	--	--	-0.179	45.2	-0.178	37.5	-0.195	7.9	--	--	--	--

- General Notes:**
- 1. The first day of SSDS operation was April 30, 2007.
 - 2. VOC = volatile organic compound.
 - 3. ppm = parts per million.
 - 4. in. w.c. = inches water column.
 - 5. "--" = not measured.
 - 6. NI = Not yet installed.
 - 7. The soil vapor extraction (SVE) system was started up on August 22, 2007.
 - 8. VOC concentrations were measured using a photoionization detector with a detection limit of 0.5 ppm.
 - 9. N/A = Not Applicable
 - 10. Carbon treatment system was adjusted to run at positive pressure on June 7, 2007.
 - 11. Refer to Figure 4-1 for the SSDS Monitoring locations.
 - * Results obtained during SVE diagnostic test.

Table 4-1
Sub-Slab Depressurization System (SSDS)
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	Date:	7/17/2007		7/24/2007		7/31/2007*		7/31/2007		8/7/2007		8/19/2007		8/20/2007		8/21/2007		8/22/2007	
		Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)
West Header		-4.55	45.1	-4.55	87.6	-5.86	16	-4.7	43.5	-4.65	50.3	-4.3	61.1	-4.83	56	-4.72	46	-3.59	46
Center Header		-4.65	101.8	-4.58	155.1	-6.08	31.9	-4.93	141.1	-4.83	136.2	-4.5	157	-4.58	131	-4.54	113	-3.61	118
East Header		-1.88	195.6	-1.89	266	-3.75	55.9	-1.85	171.7	-1.78	222.2	-1.4	239.6	-1.87	218	-1.86	196	-3.63	176
Combined Influent		-8.13	82.2	-8.21	127.5	-9.56	29.3	-8.37	89.7	-8.39	100.7	-8.2	114	-6.25	119	-6.18	104	-5.7	234
Lead Carbon Effluent		--	--	--	--	--	--	--	--	--	--	9.5	18.1	--	21.9	10.17	28	--	19.4
System Discharge		N/A	0.2	N/A	1.1	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0
EP-W1		--	--	-4.142	498	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W2		--	--	-3.267	145.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W3		--	--	-2.55	107.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W4		--	--	-1.856	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W5		--	--	-1.457	3.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W6		--	--	-1.594	3.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W7		--	--	-1.547	5.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W8		--	--	-1.557	55.3	--	--	--	--	--	--	--	--	-1.553	--	-1.518	--	-1.381	--
EP-C1		--	--	-4.239	213	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C2		--	--	-4.265	127.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C3		--	--	-4.003	111.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C4		--	--	-3.789	3000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C5		--	--	-3.596	188.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C6		--	--	-3.27	5.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C7		--	--	-2.725	59.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C8		--	--	-3.071	65.4	--	--	--	--	--	--	--	--	-2.954	--	-2.936	--	-2.712	--
EP-C9		--	--	-3.121	119	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E1		--	--	-1.754	2000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E2		--	--	-1.71	62.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E3		--	--	-1.603	67.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E4		--	--	-1.635	11.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E5		--	--	-1.631	3.6	--	--	--	--	--	--	--	--	-1.583	--	-1.553	--	-1.603	--
SS3		--	--	-0.294	64.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS4		--	--	-0.835	163	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS20		--	--	-0.125	3000	--	--	--	--	--	--	--	--	-0.098	--	-0.101	--	-0.094	--
SS21		--	--	-0.607	589	--	--	--	--	--	--	--	--	-0.585	--	-0.597	--	-0.568	--
SS22		--	--	-0.595	1200	--	--	--	--	--	--	--	--	-0.549	--	-0.577	--	-0.528	--
SS23		--	--	-0.368	61.6	--	--	--	--	--	--	--	--	-0.339	--	-0.332	--	-0.321	--
SS24		--	--	-0.446	2	--	--	--	--	--	--	--	--	-0.443	--	-0.443	--	--	--
SS25		--	--	-0.78	265	--	--	--	--	--	--	--	--	-0.738	--	-0.741	--	-0.709	--
SS26		--	--	-0.475	3	--	--	--	--	--	--	--	--	-0.447	--	-0.437	--	--	--
SS27		--	--	-0.184	103.5	--	--	--	--	--	--	--	--	-0.169	--	-0.168	--	-0.176	--

- General Notes:**
1. The first day of SSDS operation was April 30, 2007.
 2. VOC = volatile organic compound.
 3. ppm = parts per million.
 4. in. w.c. = inches water column.
 5. "--" = not measured.
 6. NI = Not yet installed.
 7. The soil vapor extraction (SVE) system was started up on August 22, 2007.
 8. VOC concentrations were measured using a photoionization detector with a detection limit of 0.5 ppm.
 9. N/A = Not Applicable
 10. Carbon treatment system was adjusted to run at positive pressure on June 7, 2007.
 11. Refer to Figure 4-1 for the SSDS Monitoring locations.
- * Results obtained during SVE diagnostic test.

Table 4-1
Sub-Slab Depressurization System (SSDS)
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	8/23/2007		8/24/2007		8/28/2007		9/4/2007		9/11/2007		9/18/2007		9/25/2007		10/2/2007		10/16/2007	
	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)	Pressure (in. w.c)	VOC (ppm)
West Header	-4.37	41	-4.36	--	-4.27	38	-4.28	60	-4.15	50.5	-4.35	49	-4.24	36	-4.69	37.1	-4.05	36.8
Center Header	-4.3	94	-4.24	--	-4.15	72	-4.23	113	-4.07	90.9	-4.29	96	-4.17	70	-4.62	72.5	-4.01	63.2
East Header	-2.01	160	-2.03	--	-1.92	125	-2.13	199	-2.05	157.1	-1.96	159	-1.96	136	-2.06	108	-1.78	121
Combined Influent	-5.81	208	-5.78	--	-5.68	158	-5.74	209	-5.56	175.9	-5.82	178	-5.69	136	-6.41	121	-5.54	120
Lead Carbon Effluent	8.61	36	--	--	--	--	--	52	10.89	0	11.12	9	10.52	51	--	52	15.16	0.063
System Discharge	N/A	0	N/A	--	N/A	0	N/A	0.2	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0
EP-W1	-3.993	228	--	--	-3.814	225	-3.784	266	-3.789	950	-3.751	224	-3.633	232	-4.125	188	--	--
EP-W2	-3.109	85	--	--	-3.016	115	-2.962	117	-2.913	170	-2.873	85	-2.864	89.4	-3.128	74	--	--
EP-W3	-2.348	19	--	--	-2.305	38	-2.235	26	-2.179	48	-2.162	27	-2.163	23.6	-2.319	23.1	--	--
EP-W4	-1.712	3	--	--	-1.676	5	-1.611	2.5	-1.569	14.4	-1.585	0	-1.584	0.3	-1.663	0.2	--	--
EP-W5	-1.315	0	--	--	-1.308	15	-1.247	1	-1.178	0.3	-1.219	0	-1.221	0	-1.271	0	--	--
EP-W6	-1.471	0	--	--	-1.411	8	-1.382	1	-1.329	0	-1.343	0	-1.345	0	-1.434	0	--	--
EP-W7	-1.417	0	--	--	-1.376	5	-1.345	2	-1.279	0.5	-1.287	0	-1.308	0.2	-1.378	0.3	--	--
EP-W8	-1.447	21	-1.44	--	-1.408	20	-1.364	20	-1.298	17.2	-1.316	11	-1.331	11	-1.403	9.7	--	--
EP-C1	-3.896	11	--	--	-3.762	30	-3.733	10.3	-3.724	86	-3.702	8	-3.591	10.5	-4.037	10.5	--	--
EP-C2	-3.942	64	--	--	-3.786	83	-3.754	80	-3.753	344	-3.726	70	-3.637	66	-4.092	56	--	--
EP-C3	-3.676	72	--	--	-3.512	90	-3.525	102	-3.507	451	-3.476	55	-3.398	76.7	-3.804	48	--	--
EP-C4	-3.494	2220	--	--	-3.352	1910	-3.349	1700	-3.335	2500	-3.252	1330	-3.215	1230	-3.558	--	--	--
EP-C5	-3.282	122	--	--	-3.137	128	-3.14	148	-3.131	145.3	-3.109	115	-3.085	120.1	-3.398	87	--	--
EP-C6	-3.039	0	--	--	-2.896	8	-2.92	1.3	-2.867	1.3	-2.869	0	-2.772	0	-3.108	--	--	--
EP-C7	-2.562	26	--	--	-2.424	15	-2.457	15	-2.419	10	-2.383	8	-2.381	5.3	-2.587	4.8	--	--
EP-C8	-2.836	24	--	--	-2.712	18	-2.736	16.2	-2.665	12.2	-2.638	7.5	-2.634	6.5	-2.897	5.5	--	--
EP-C9	-2.875	42	-2.8	--	-2.743	20	-2.775	10	-2.707	7	-2.672	4.5	-2.662	3.8	-2.933	3.7	--	--
EP-E1	-1.843	528	--	--	-1.815	480	-1.923	560	-1.976	1000	-1.744	460	-1.761	457	-1.872	323	--	--
EP-E2	-1.822	26	--	--	-1.755	43	-1.886	33	-1.865	109	-1.691	21	-1.717	22.1	-1.818	17.2	--	--
EP-E3	-1.69	5	--	--	-1.633	13	-1.751	4.3	-1.743	9	-1.556	2	-1.591	1.5	-1.658	1.5	--	--
EP-E4	-1.708	3	--	--	-1.641	4	-1.759	3.2	-1.724	2.5	-1.584	1	-1.613	1.2	-1.687	1.1	--	--
EP-E5	-1.697	0	--	--	-1.653	2.5	-1.768	1	-1.712	0.5	-1.594	0	-1.623	0	-1.683	0	--	--
SS3	-0.548	79	--	--	--	--	-0.259	121	-0.284	2000	-0.287	64	-0.568	107	--	--	--	--
SS4	-0.773	16	--	--	--	--	-0.739	107	-0.76	1700	-0.724	107	-0.716	87	-0.734	--	--	--
SS20	-0.103	6100	-0.13	--	-0.104	5260	-0.117	1800	-0.119	4000	-0.112	1200	-0.107	1600	-0.109	--	--	--
SS21	-0.594	439	--	--	-0.588	610	-0.611	572	-0.568	1200	-0.475	342	-0.587	390	-0.497	--	--	--
SS22	-0.543	3	--	--	-0.533	18	-0.528	0.5	-0.487	0	-0.531	0	-0.502	209	-0.517	--	--	--
SS23	-0.324	29	--	--	-0.321	53	-0.328	42	-0.294	41.1	-0.312	27	-0.315	31.9	-0.315	--	--	--
SS24	-0.429	0	--	--	-0.414	23	-0.414	0.5	-0.401	0	-0.398	0	-0.417	0	-0.436	--	--	--
SS25	-0.742	197	-0.72	--	-0.709	68	-0.719	229	-0.705	252	-0.697	192	-0.717	182	-0.765	--	--	--
SS26	-0.431	3	--	--	-0.442	15	-0.42	1.2	-0.396	0	-0.364	0	-0.408	0	-0.397	--	--	--
SS27	-0.174	11	-0.19	--	-0.18	25	-0.167	1.7	-0.17	14.6	-0.166	9	-0.167	10.1	-0.181	--	--	--

General Notes:

- 1. The first day of SSDS operation was April 30, 2007.
- 2. VOC = volatile organic compound.
- 3. ppm = parts per million.
- 4. in. w.c. = inches water column.
- 5. "--" = not measured.
- 6. NI = Not yet installed.
- 7. The soil vapor extraction (SVE) system was started up on August 22, 2007.
- 8. VOC concentrations were measured using a photoionization detector with a detection limit of 0.5 ppm.
- 9. N/A = Not Applicable
- 10. Carbon treatment system was adjusted to run at positive pressure on June 7, 2007.
- 11. Refer to Figure 4-1 for the SSDS Monitoring locations.
- * Results obtained during SVE diagnostic test.

Table 4-1
Sub-Slab Depressurization System (SSDS)
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	Date: 10/23/2007		10/30/2007		11/9/2007		11/13/2007		11/19/2007		11/26/2007		12/3/2007		12/7/2007		12/12/2007	
	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)
West Header	-4.21	32	-4	28	-4.07	29.4	-4.07	29.4	-4.197	26.8	-3.39	20.1	-4.1	29.3	-4.02	21.8	-3.97	22.5
Center Header	-4.1	69	-3.96	57.6	-4.08	84.1	-4.08	84.1	-4.145	79.3	-3.38	61.2	-4	121.5	-3.98	80.5	-3.92	86.4
East Header	-1.96	104	-1.68	93	-1.7	86	-1.7	86	-1.691	85	-1.55	75.8	-1.61	99.3	-1.57	79.6	-1.61	88.5
Combined Influent	-5.67	94	-5.51	95.5	-5.58	101.4	-5.58	101.4	-5.624	91.7	-4.63	73.8	-5.43	97.3	-5.52	98.5	-5.39	77.9
Lead Carbon Effluent	15.68	6.1	15.85	12.5	15.81	37.3	15.81	37.3	16.45	51.5	--	0	--	0	--	0	--	0
System Discharge	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0
EP-W1	--	--	--	--	--	--	-3.645	150.2	--	--	--	--	--	--	-3.52	--	--	--
EP-W2	--	--	--	--	--	--	-2.733	59.1	--	--	--	--	--	--	-2.63	--	--	--
EP-W3	--	--	--	--	--	--	-1.94	20.1	--	--	--	--	--	--	-1.86	--	--	--
EP-W4	--	--	--	--	--	--	-1.388	0	--	--	--	--	--	--	-1.33	--	--	--
EP-W5	--	--	--	--	--	--	-1.03	0	--	--	--	--	--	--	-0.96	--	--	--
EP-W6	--	--	--	--	--	--	-1.17	0	--	--	--	--	--	--	-1.11	--	--	--
EP-W7	--	--	--	--	--	--	-1.12	0.2	--	--	--	--	--	--	-1.03	--	--	--
EP-W8	--	--	--	--	--	--	-1.13	5.3	--	--	--	--	--	--	-1.06	--	--	--
EP-C1	--	--	--	--	--	--	-3.62	25	--	--	--	--	--	--	-3.498	--	--	--
EP-C2	--	--	--	--	--	--	-3.6	78.9	--	--	--	--	--	--	-3.514	--	--	--
EP-C3	--	--	--	--	--	--	-3.275	20	--	--	--	--	--	--	-3.25	--	--	--
EP-C4	--	--	--	--	--	--	-3.01	2510	--	--	--	--	--	--	-3.07	--	--	--
EP-C5	--	--	--	--	--	--	-2.83	86.5	--	--	--	--	--	--	-2.89	--	--	--
EP-C6	--	--	--	--	--	--	-2.51	0.2	--	--	--	--	--	--	-2.637	--	--	--
EP-C7	--	--	--	--	--	--	-1.99	3.3	--	--	--	--	--	--	-2.221	--	--	--
EP-C8	--	--	--	--	--	--	-2.28	2.7	--	--	--	--	--	--	-2.473	--	--	--
EP-C9	--	--	--	--	--	--	-2.32	2	--	--	--	--	--	--	-2.51	--	--	--
EP-E1	--	--	--	--	--	--	-1.47	328	--	--	--	--	--	--	-1.364	--	--	--
EP-E2	--	--	--	--	--	--	-1.43	14.5	--	--	--	--	--	--	-1.286	--	--	--
EP-E3	--	--	--	--	--	--	-1.28	0.2	--	--	--	--	--	--	-1.148	--	--	--
EP-E4	--	--	--	--	--	--	-1.29	0.3	--	--	--	--	--	--	-1.176	--	--	--
EP-E5	--	--	--	--	--	--	-1.32	0	--	--	--	--	--	--	-1.187	--	--	--
SS3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.186	--	--	--
SS4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.449	--	--	--
SS20	--	--	--	--	--	--	-0.087	2950	--	--	--	--	--	--	-0.06	--	--	--
SS21	--	--	--	--	--	--	-0.106	171	--	--	--	--	--	--	-0.075	--	--	--
SS22	--	--	--	--	--	--	-0.31	460	--	--	--	--	--	--	-0.287	--	--	--
SS23	--	--	--	--	--	--	-0.2	24	--	--	--	--	--	--	-0.172	--	--	--
SS24	--	--	--	--	--	--	-0.32	0.2	--	--	--	--	--	--	-0.353	--	--	--
SS25	--	--	--	--	--	--	-0.59	92	--	--	--	--	--	--	-0.645	--	--	--
SS26	--	--	--	--	--	--	-0.23	0.5	--	--	--	--	--	--	-0.254	--	--	--
SS27	--	--	--	--	--	--	-0.15	5.5	--	--	--	--	--	--	-0.146	--	--	--

- General Notes:
1. The first day of SSDS operation was April 30, 2007.
 2. VOC = volatile organic compound.
 3. ppm = parts per million.
 4. in. w.c. = inches water column.
 5. "--" = not measured.
 6. NI = Not yet installed.
 7. The soil vapor extraction (SVE) system was started up on August 22, 2007.
 8. VOC concentrations were measured using a photoionization detector with a detection limit of 0.5 ppm.
 9. N/A = Not Applicable
 10. Carbon treatment system was adjusted to run at positive pressure on June 7, 2007.
 11. Refer to Figure 4-1 for the SSDS Monitoring locations.
- * Results obtained during SVE diagnostic test.

Table 4-1
Sub-Slab Depressurization System (SSDS)
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	Date:	12/27/2007		1/10/2008		1/16/2008		1/28/2008		2/8/2008		2/13/2008		2/21/2008		3/7/2008		3/13/2008	
		Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)
West Header		-4.05	14.1	-3.98	18.3	--	--	--	--	-4.07	8.1	--	--	--	--	--	--	-3.98	8.1
Center Header		-4.06	78.5	-3.97	58.5	--	--	--	--	-4.05	48.9	--	--	--	--	--	--	-3.98	33.7
East Header		-1.67	65.3	-1.71	61	--	--	--	--	-1.71	41.5	--	--	--	--	--	--	-1.62	34.7
Combined Influent		-5.59	64.8	-5.47	55.5	--	55	--	37.2	--	35.6	--	34.5	--	28.5	--	33.0	-5.48	43.0
Lead Carbon Effluent		--	0.067	--	13.5	--	13.2	--	13.1	--	14.9	--	13.1	--	14.5	--	28.0	--	0
System Discharge		N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	--
EP-W1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W3		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W6		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W7		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-W8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C3		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C6		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C7		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-C9		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E3		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-E5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS3		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS20		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS21		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS22		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS23		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS24		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS25		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS26		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS27		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:**
- 1. The first day of SSDS operation was April 30, 2007.
 - 2. VOC = volatile organic compound.
 - 3. ppm = parts per million.
 - 4. in. w.c. = inches water column.
 - 5. "--" = not measured.
 - 6. NI = Not yet installed.
 - 7. The soil vapor extraction (SVE) system was started up on August 22, 2007.
 - 8. VOC concentrations were measured using a photoionization detector with a detection limit of 0.5 ppm.
 - 9. N/A = Not Applicable
 - 10. Carbon treatment system was adjusted to run at positive pressure on June 7, 2007.
 - 11. Refer to Figure 4-1 for the SSDS Monitoring locations.
- * Results obtained during SVE diagnostic test.

Table 4-2
Soil Vapor Extraction (SVE) System
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	8/20/2007		8/21/2007		8/22/2007		8/23/2007		8/24/2007		8/28/2007		9/4/2007		9/11/2007		9/18/2007		9/25/2007	
	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)
North Header	--	--	--	--	-4.28	8200	-5.11	5800	-4.46	--	-4.32	2165	-4.41	2278	-4.26	1750	-4.47	1760	-4.31	931
South Header	-4.94	684	-4.93	470	-4.31	467	-5.12	404	-4.44	--	-4.37	277	-4.44	387	-4.27	486	-4.48	308	-4.32	177
Primary Carbon Influent	-6.25	119	-6.18	104	-5.7	234	-6.68	208	-5.78	--	-5.68	158	-5.74	209	-5.56	175.9	-5.82	178	-5.69	136
Primary Carbon Effluent	--	21.9	10.17	28	--	19.4	8.61	36	--	--	--	0	--	52	10.89	0	11.12	9	10.52	51
System Discharge	N/A	0	N/A	0	N/A	0	N/A	0	N/A	--	N/A	0	N/A	0.2	N/A	0	N/A	0	N/A	0
SVE-1	NI	NI	NI	NI	-4.34	157	-4.96	89	--	--	-4.305	30	-4.31	22	-4.387	184	-4.3	12	-4.16	11.8
SVE-2	NI	NI	NI	NI	-4.31	428	-4.96	276	--	--	-4.307	55	-4.32	49	-4.345	162	-4.31	22	-4.12	22.5
SVE-3	NI	NI	NI	NI	-4.38	6450	-4.97	2300	--	--	-4.267	630	-4.28	621	-4.33	491	-4.27	426	-4.11	479
SVE-4	NI	NI	NI	NI	-4.32	1009	-4.98	465	--	--	-4.315	726	-4.3	510	-4.35	340	-4.31	224	-4.15	213
SVE-5	NI	NI	NI	NI	-4.35	8000	-5.01	4000	--	--	-4.318	4040	-4.29	1500	-4.36	1200	-4.31	1100	-4.16	1519
SVE-6	-4.98	197	-4.91	152	-4.39	139	-4.98	121	--	--	-4.366	72	-4.39	102	-4.46	312	-4.44	112	-4.25	87
SVE-7	-4.98	577	-4.97	263	-4.37	368	-4.97	266	--	--	-4.376	165	-4.41	320	-4.46	790	-4.45	258	-4.24	330
SVT-MW201D	--	--	--	--	--	--	--	--	--	--	-0.045	0	-0.049	2	-0.065	20	-0.048	1	-0.052	1.7
SVT-MW201S	--	--	--	--	--	--	--	--	--	--	0	0	-0.004	3.5	-0.004	15	-0.005	2	0	1.8
SVT-MW202D	--	--	--	--	--	--	--	--	--	--	-0.013	0	-0.012	0.5	-0.019	0	-0.018	0	-0.008	0
SVT-MW202S	--	--	--	--	--	--	--	--	--	--	0	0	0	1.5	0	0	0	0	0	0.2
SVT-1D	--	--	--	--	-0.32	1.4	-0.36	28	--	--	-0.6	2.5	-0.327	7.5	-0.321	196	-1.405	2	-0.226	0
SVT-2D	--	--	--	--	-0.73	19.4	-0.81	38	--	--	-1.1	5	-0.715	10.7	-0.753	124	-0.712	1	-0.669	0
SVT-3D	--	--	--	--	-0.14	5	0.301	4	--	--	0.36	12.4	-0.058	22	-0.149	15	-0.092	0	-0.096	9.1
SVT-3S	--	--	--	--	-0.31	40	-0.749	24	--	--	-0.07	7.5	-0.074	11.6	-0.095	3.2	-0.085	4	-0.286	3.8
SVT-4D	--	--	--	--	--	--	0.138	38	--	--	0.25	17.5	-0.065	21	-0.107	16	-0.092	1	-0.074	7.5
SVT-5D	--	--	--	--	-1.46	7.4	-1.736	23	--	--	-1.49	0	-1.443	30	-1.594	105	-1.517	11	-1.358	12.1
SVT-5S	--	--	--	--	-0.52	129	-0.635	42	--	--	-0.54	2.5	-0.523	11.7	-0.703	124	-0.636	5	-0.545	5.2
SVT-6D	--	--	--	--	--	--	-1.257	248	--	--	-1.19	53	-1.187	67	-1.351	44	-1.217	13	-1.141	25.8
SVT-7D	--	--	--	--	--	--	-0.027	4	--	--	-0.025	2.5	-0.03	1.3	-0.017	0	-0.032	1	-0.022	0.2
SVT-8D	--	--	--	--	--	--	-1.98	1850	--	--	-1.731	541	-0.18	196	-1.827	7000	-1.642	116	-1.568	199
SVT-8S	--	--	--	--	--	--	-0.21	600	--	--	-0.183	180	-1.697	734	-0.258	1050	-0.214	707	-0.171	534
SVT-9D	--	--	--	--	-0.79	1500	-0.805	1370	--	--	-0.778	830	-0.769	1000	-1.003	1000	-0.836	1173	-0.716	933
SVT-9S	--	--	--	--	-0.53	2500	-0.31	2350	--	--	-0.695	2029	-0.285	1300	-1.102	928	-1.011	632	-0.347	877
SVT-10D	--	--	--	--	--	--	-0.01	5	--	--	0.394	38	0.11	4	-0.016	0	--	1	-0.008	2.2
SVT-11S	--	--	--	--	--	--	-0.008	1.3	--	--	-0.008	35	-0.007	0.5	-0.048	0	--	0	-0.005	0
SVT-12D	--	--	--	--	--	--	-0.019	1.3	--	--	-0.021	40	-0.008	3	-0.161	5	-0.125	6	--	--
SVT-12S	--	--	--	--	--	--	-0.009	1.3	--	--	-0.01	38	0.314	8	-0.09	0	--	1.3	--	0
SVT-14S	--	--	--	--	--	--	-0.004	98	--	--	-0.006	162	-0.003	148	-0.008	115	-0.005	117	-0.005	24.6
SVT-15D	--	--	--	--	--	--	-0.013	1.3	--	--	-0.015	0	-0.013	1.5	-0.013	0	-0.015	0	-0.014	0
SVT-16D	--	--	--	--	--	--	-0.367	6	--	--	-0.305	18	-0.221	29	-0.01	36	-0.155	21	-0.219	14
SVT-16S	--	--	--	--	--	--	-0.003	36	--	--	-0.007	33	-0.287	90	-0.009	73	0	30	-0.18	47
SVT-17D	--	--	--	--	--	--	--	--	--	--	0.68	30	0.41	53	-0.006	114	0	41	-0.011	38
SVT-17S	--	--	--	--	--	--	--	--	--	--	0.006	33	0	45	-0.005	45	0	35	-0.007	31
SVT-18D	--	--	--	--	--	--	--	--	--	--	0.006	68	0.004	123	0	137	0	164	0	147
SVT-19D	--	--	--	--	--	--	0.12	270	--	--	-0.011	190	-0.007	266	-0.012	420	0	441	-0.007	291
SVT-20D	--	--	--	--	--	--	0	50	--	--	0.003	30	0	33	0	91	0	72	0	39
SVT-20S	--	--	--	--	--	--	0	36	--	--	0	26	0	29	0	70	0	48	0	23
SVT-21D	--	--	--	--	--	--	--	--	--	--	0.004	50	0	87	-0.002	125	0	101	0.36	79
SVT-22D	--	--	--	--	--	--	-0.119	290	--	--	-0.181	208	-0.185	140	-0.264	870	-0.209	141	-0.17	99
SVT-22S	--	--	--	--	--	--	-0.003	86	--	--	-0.005	60	-0.173	55	-0.005	163	0	11	-0.15	6
SVT-23D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.234	27	0.34	40
SVT-24D	--	--	--	--	--	--	--	--	--	--	0	23	0	28	0	76	0	49	0	33
SVT-25D	--	--	--	--	--	--	--	--	--	--	--	--	0	30	0	34	0	28	--	--
SVT-25S	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0	0	0	0	--	--
SVT-26D	--	--	--	--	--	--	--	--	--	--	--	--	0	0.6	0	7	0	0	--	--
SVT-27D	--	--	--	--	--	--	--	--	--	--	--	--	0.004	0.4	0	0	0.006	0	--	--

General Notes:

1. The SVE system was started up on August 22, 2007.
2. VOC = volatile organic compound in parts per million (ppm).
3. ppm = parts per million.
4. in. w.c. = inches water column.
5. "--" = not measured.
6. Header readings on 8/23/07 were taken with one carbon tank in series. Monitoring point readings were taken with two carbon tanks in series.
7. SVT monitoring points listed on 9/11/07 were measured on 9/12/07 due to rain.
8. NI = Not Yet Installed.
9. N/A = Not Applicable
10. South header online 8/20/07.
11. Refer to Figures 4-2a and 4-2b for the SVE monitoring and extraction points.

Table 4-2
Soil Vapor Extraction (SVE) System
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Monitoring Point	10/2/2007		10/16/2007		10/23/2007		10/30/2007		11/9/2007		11/13/2007		11/19/2007		11/26/2007		12/3/2007		12/7/2007	
	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)
North Header	-4.78	1134	-4.09	1140	-4.34	940	-4.09	802	-4.24	980	-4.24	980	-4.295	755	-3.51	618	-4.08	903	-4.13	811
South Header	-4.83	225	-4.16	188	-4.33	244	-4.11	152.5	-4.25	330	-4.25	330	-4.25	279	-3.54	199	-4.12	260	-4.14	264
Primary Carbon Influent	-6.41	121	-5.54	120	-5.67	94	-5.51	95.5	-5.58	101.4	-5.58	101.4	-5.624	91.7	-4.63	73.8	-5.43	97.3	-5.52	98.5
Primary Carbon Effluent	--	52	15.16	0.063	15.68	6.1	15.85	12.5	15.81	37.3	15.81	37.3	16.45	51.5	--	0	--	0	--	0
System Discharge	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0
SVE-1	-4.72	7.1	-4.06	9.5	-4.23	9	-4.05	6.4	-4.166	3.8	-4.18	6.1	-4.288	8.2	-3.487	10.4	-3.97	3.9	-4.09	7.8
SVE-2	-4.72	13.1	-4.03	12	-4.22	11	-4.01	8.5	-4.138	5.2	-4.2	11.8	--	--	-3.458	10.9	-4.02	5.5	-4.08	11.5
SVE-3	-4.73	308	-4.01	405	-4.24	297	-4.01	297	-4.127	226.6	-4.19	323	-4.203	33	-3.438	130.8	-4.07	375	-4.07	373
SVE-4	-4.73	133	-4.05	150	-4.21	110	-4.03	109.5	-4.166	76.9	-4.14	107.7	-4.256	105.3	-3.5	14.8	-4.13	124	-4.08	97.8
SVE-5	-4.71	1093	-4.02	1900	-4.22	1460	-4.07	1300	-4.19	2400	-4.16	2700	--	--	-4.106	2638	-4.09	3450	-4.09	2530
SVE-6	-4.82	73	-4.11	78	-4.28	86	-4.11	84.4	-4.19	50.4	-4.165	72.9	-4.279	85.1	-3.548	32.1	-4.131	47.3	-4.14	68.8
SVE-7	-4.78	181	-4.13	197	-4.31	172	-4.09	210	-4.177	108.2	-4.25	335	-4.271	172.7	-3.545	201.9	-4.149	187	-4.1	265
SVT-MW201D	-0.049	0	-0.051	0.7	-0.075	0.7	-0.042	0.8	-0.045	2.8	-0.041	0.4	-0.052	0.8	-0.068	0.8	-0.051	0.6	--	--
SVT-MW201S	-0.004	0.3	-0.003	0	-0.007	1.2	-0.005	0.1	-0.007	0.9	-0.005	0.5	-0.009	0	-0.008	0.5	-0.009	0.8	--	--
SVT-MW202D	-0.006	0	-0.018	0	-0.041	0	-0.019	0	-0.024	1.4	-0.024	0.5	-0.022	0.1	-0.037	0.6	-0.012	0	--	--
SVT-MW202S	0	0	0	0	0	0	0	0	-0.004	0.5	0	0	-0.009	0.3	-0.007	1.8	-0.003	0	--	--
SVT-1D	-0.34	1	-0.298	1.5	-0.337	2.7	-0.182	0.9	-0.062	0.33	-0.319	0.2	-0.331	2.2	-0.295	1.7	--	--	--	--
SVT-2D	-0.744	0.1	-0.66	1.2	-0.703	2	-0.671	0	-0.687	1.2	-0.676	0	-0.689	0.8	-0.585	0.4	--	--	--	--
SVT-3D	-0.101	5	-0.091	0	-0.107	0.3	-0.1	0	-0.094	0	-0.116	0	-0.108	0	-0.123	0	--	--	--	--
SVT-3S	-0.083	1.4	-0.077	1.6	-0.091	2.8	-0.083	0.1	-0.385	0.9	-0.495	0	-0.316	0.4	-0.089	0	--	--	--	--
SVT-4D	-0.088	7	-0.076	0	-0.102	0	-0.066	0	-0.085	0.4	-0.088	0	-0.1	0	-0.095	0	-0.076	7.7	--	--
SVT-5D	-1.547	1.7	-1.354	5.6	-1.382	0.9	-1.391	4.4	-1.442	0.5	-1.41	0.1	-1.438	4.7	-1.185	0	--	--	--	--
SVT-5S	-0.576	1.1	-0.578	2.7	-0.648	5.1	-0.624	2.1	-0.642	1.2	-0.448	0.5	-0.331	0	-0.354	0.1	--	--	--	--
SVT-6D	-1.296	20	-1.135	9	-1.209	12	-1.155	8.6	-1.188	97.2	--	--	-1.135	1.2	-1.07	3.8	--	--	--	--
SVT-7D	-0.024	0.1	-0.02	0	-0.017	0.2	-0.021	0	-0.026	0.5	-0.021	0	-0.02	0	-0.027	0.3	-0.027	0.3	--	--
SVT-8D	-1.764	189	-1.465	0.8	-1.325	79	-1.267	0	-1.259	39	-1.31	0.9	1.26	0.1	-1.093	0	--	--	--	--
SVT-8S	-0.201	292	-0.18	645	-0.212	744	-0.194	610	-0.2	0.3	-0.19	480	-0.102	550	-0.251	0.9	--	--	--	--
SVT-9D	-0.859	950	-0.76	2034	-0.724	1480	-0.823	1230	-0.832	4700	-0.85	3260	-0.865	2600	-0.859	5200	--	--	--	--
SVT-9S	-0.411	800	-0.554	545	-0.362	1050	-0.055	1050	-0.515	3200	-0.54	2200	-0.512	2400	-0.547	3400	--	--	--	--
SVT-10D	--	--	--	--	--	--	--	--	--	--	0.095	0.3	--	--	--	--	--	--	--	--
SVT-11S	--	--	--	--	--	--	--	--	--	--	0.054	0	--	--	--	--	--	--	--	--
SVT-12D	--	--	--	--	--	--	--	--	--	--	-0.031	0.5	--	--	--	--	--	--	--	--
SVT-12S	--	--	--	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--
SVT-14S	--	--	--	--	--	--	--	--	--	--	0	4.4	--	--	--	--	--	--	--	--
SVT-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-16D	--	15	-0.051	22	0.287	23	-0.059	8.5	-0.046	29.4	-0.052	7.8	-0.042	23.5	-0.047	28.1	--	--	--	--
SVT-16S	-0.005	47	0	39	0	41	-0.005	21.3	-0.003	37.5	0	9.1	0	27.1	0	23.9	--	--	--	--
SVT-17D	0	28	0.004	34	0	46	0	52	0	110.8	0	10.1	0.012	23.7	-0.011	110.9	--	--	--	--
SVT-17S	0	22	0	18	0	29	0	12.2	0.003	29.7	-0.003	24.5	0.006	96.9	-0.005	23	--	--	--	--
SVT-18D	--	--	--	--	--	--	--	--	--	--	0.005	147	--	--	--	--	--	--	--	--
SVT-19D	-0.007	265	0	320	-0.004	210	-0.008	222	-0.009	383	-0.008	26.8	0	273	0	257	--	--	--	--
SVT-20D	--	--	--	--	0.003	36	0	38	0	68.2	0	52.9	0	46.2	--	--	--	--	--	--
SVT-20S	--	--	--	--	0	19	0	20	0	24.7	0	18	0.01	21.9	--	--	--	--	--	--
SVT-21D	--	--	--	--	--	--	--	--	--	--	0	215	--	--	--	--	--	--	--	--
SVT-22D	-0.194	92	-0.161	175	0.221	831	-0.166	606	-0.156	950	-0.163	59.1	-0.161	278	--	--	--	--	--	--
SVT-22S	-0.045	50	-0.004	45	-0.003	55	-0.003	36	0	40.3	0	9.8	-0.004	29.7	--	--	--	--	--	--
SVT-23D	--	--	--	--	--	--	--	--	-0.097	68.2	--	--	--	--	-0.058	62.9	--	--	--	--
SVT-24D	--	--	--	--	--	--	--	--	--	--	0	59.7	--	--	--	--	--	--	--	--
SVT-25D	--	--	--	--	--	--	--	--	--	--	0	0.4	--	--	--	--	--	--	--	--
SVT-25S	--	--	--	--	--	--	--	--	--	--	0	49	--	--	--	--	--	--	--	--
SVT-26D	--	--	--	--	--	--	--	--	--	--	0	1	--	--	--	--	--	--	--	--
SVT-27D	--	--	--	--	--	--	--	--	--	--	0	0.5	--	--	--	--	--	--	--	--

- General Notes:**
- The SVE system was started up on August 22, 2007.
 - VOC = volatile organic compound in parts per million (ppm).
 - ppm = parts per million.
 - in. w.c. = inches water column.
 - "--" = not measured.
 - Header readings on 8/23/07 were taken with one carbon tank in series. Monitoring point readings were taken with two carbon tanks in series.
 - SVT monitoring points listed on 9/11/07 were measured on 9/12/07 due to rain.
 - NI = Not Yet Installed.
 - N/A = Not Applicable
 - South header online 8/20/07.
 - Refer to Figures 4-2a and 4-2b for the SVE monitoring and extraction points.

Table 4-2
Soil Vapor Extraction (SVE) System
Monitoring Results (50 Tufts Street)
50 Tufts Street
Somerville, Massachusetts

Date:	12/12/2007		12/27/2007		1/10/2008		1/16/2008		1/28/2008		2/8/2008		2/13/2008		2/21/2008		3/7/2008		3/13/2008	
Monitoring Point	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)	Pressure (in. w.c.)	VOC (ppm)
North Header	-4.08	665	-4.19	613	-4.11	398	--	--	--	--	--	242	--	--	--	--	--	--	-4.17	367
South Header	-4.09	225	-4.2	267	-4.12	144	--	--	--	--	--	162	--	--	--	--	--	--	-4.15	52.6
Primary Carbon Influent	-5.39	77.9	-5.59	64.8	-5.47	55.5	--	55	--	37.2	--	35.6	--	34.5	--	28.5	--	33.0	-5.48	43.0
Primary Carbon Effluent	--	0	--	0.067	--	13.5	--	13.2	--	13.1	--	14.9	--	13.1	--	14.5	--	28.0	--	0
System Discharge	N/A	0	N/A	0	N/A	0	--	0	--	0	N/A	0	--	0	--	0	--	0	N/A	--
SVE-1	-4.02	4.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-4.07	0.8
SVE-2	-4.05	8.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-4.06	1.7
SVE-3	-4.03	282	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-4.05	37.3
SVE-4	-4.05	96.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-4.03	20.5
SVE-5	-4.05	3260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-4.02	650
SVE-6	-4.08	54.1	--	--	-4.1	20.4	--	--	--	--	--	--	--	--	--	--	--	--	-4.14	55.9
SVE-7	-4.09	219	--	--	-4.13	141	--	--	--	--	--	--	--	--	--	--	--	--	-4.13	8.0
SVT-MW201D	-0.061	1.1	--	--	--	--	0	0	--	--	--	--	--	--	--	--	--	--	-0.055	0
SVT-MW201S	-0.009	0	--	--	--	--	-0.008	0.05	--	--	--	--	--	--	--	--	--	--	-0.024	0
SVT-MW202D	-0.029	0	--	--	--	--	-0.013	0.082	--	--	--	--	--	--	--	--	--	--	-0.023	0
SVT-MW202S	0	0.2	--	--	--	--	0	0	--	--	--	--	--	--	--	--	--	--	-0.466	0.7
SVT-1D	-0.325	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.242	0.7
SVT-2D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.547	0.5
SVT-3D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.378	2.3
SVT-3S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.097	0
SVT-4D	-0.086	6.1	--	--	--	--	-0.083	0	--	--	--	--	--	--	--	--	--	--	-0.067	3.7
SVT-5D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-1.071	0
SVT-5S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.268	0
SVT-6D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.503	0
SVT-7D	-0.021	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0
SVT-8D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.025	0
SVT-8S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.186	0
SVT-9D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-9S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-10D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-11S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-12D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-12S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-14S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-16D	--	--	--	--	-0.029	16.6	--	--	--	--	--	--	--	--	--	--	--	--	-0.177	10
SVT-16S	--	--	--	--	-0.01	13.0	--	--	--	--	--	--	--	--	--	--	--	--	-0.041	23
SVT-17D	--	--	--	--	0	58.9	--	--	--	--	--	--	--	--	--	--	--	--	-0.003	48
SVT-17S	--	--	--	--	-0.004	11.7	--	--	--	--	--	--	--	--	--	--	--	--	-0.012	18
SVT-18D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	147
SVT-19D	--	--	--	--	-0.005	127	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-20D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-20S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-21D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-22D	--	--	--	--	-0.161	165	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-22S	--	--	--	--	0	28.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-23D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-24D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-25D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-25S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-26D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVT-27D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

General Notes:

1. The SVE system was started up on August 22, 2007.
2. VOC = volatile organic compound in parts per million (ppm).
3. ppm = parts per million.
4. in. w.c. = inches water column.
5. "--" = not measured.
6. Header readings on 8/23/07 were taken with one carbon tank in series. Monitoring point readings were taken with two carbon tanks in series.
7. SVT monitoring points listed on 9/11/07 were measured on 9/12/07 due to rain.
8. NI = Not Yet Installed.
9. N/A = Not Applicable
10. South header online 8/20/07.
11. Refer to Figures 4-2a and 4-2b for the SVE monitoring and extraction points.

Table 4-3
SSDS Influent and Effluent Sampling Results, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By: Units:	Carbon Influent						Carbon Effluent			
	04516-50T-INF		045162-50 TUFT-INF		045162-50 TUFT-INF		04516-50T-EFF		045162-50 TUFT-EFF	
	5/1/07		6/12/07		3/13/08		5/1/07		6/12/07	
	GEI		GEI		GEI		GEI		GEI	
Analyte	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)										
Acetone	7440	3130	< 1400	< 600	NM	NM	848 E	357 E	< 24	< 10
Benzene	< 160	< 50	< 1900	< 600	NM	NM	3.0	0.93	< 32	< 10
Chloroethane	< 53	< 20	< 630	< 240	< 530	< 200	< 0.53	< 0.2	< 11	< 4.0
Chloroform	< 240	< 50	< 2900	< 600	NM	NM	< 0.53	< 0.20	93.8	19.2
Chloromethane	< 130	< 20	< 630	< 240	NM	NM	0.89 J	0.43 J	< 21	< 10
Carbon tetrachloride	< 130	< 20	< 1500	< 240	< 1300	< 200	< 1.3	< 0.20	< 25	< 4.0
1,1 Dichloroethane	< 81	< 20	< 970	< 240	< 810	< 200	< 0.81	< 0.2	14 J	3.4 J
cis-1,2-Dichloroethene	< 79	< 20	< 950	< 240	< 790	< 200	< 0.79	< 0.2	31	7.7
1,1-Dichloroethene	341	86.1	< 950	< 240	< 790	< 200	< 0.79	< 0.20	519	131
1,4-Dioxane	936	260	< 2200	< 600	NM	NM	< 1.8	< 0.50	< 36	< 10
Ethylbenzene	342	78.7	< 2600	< 600	NM	NM	< 2.2	< 0.5	< 43	< 10
Freon 113	209 J	27.3 J	< 4600	< 600	NM	NM	< 3.8	< 0.5	< 77	< 10
Methylene chloride	1650	476	< 2100	< 600	NM	NM	< 1.7	< 0.5	< 35	< 10
Methyl ethyl ketone	< 150	< 50	< 1800	< 600	NM	NM	7.7	2.6	< 29	< 10
Methyl Isobutyl Ketone	< 200	< 50	< 2500	< 600	NM	NM	3.4	0.82	< 41	< 10
Propylene	< 86	< 50	< 1000	< 600	NM	NM	198 E	115 E	< 17	< 10
Tetrachloroethene (PCE)	392000	57800	347000 G	51100 G	157000	23100	< 1.4	< 0.20	117	17.3
Tetrahydrofuran	663	225	< 1800	< 600	NM	NM	5.9	2.0	< 29	< 10
1,1,1-Trichloroethane	13700	2510	12800	2340	2460	450	< 1.1	< 0.20	8780	1610
Trichloroethene (TCE)	15700	2920	5800	1080	2450	455	< 1.1	< 0.20	28	5.2
Vinyl Chloride	< 51	< 20	< 610	< 240	< 510	< 200	< 0.51	< 0.20	< 10	< 4.0
m,p-Xylene	1540	354	< 2600	< 600	NM	NM	< 2.2	< 0.5	< 43	< 10
o-Xylene	534	123	< 2600	< 600	NM	NM	< 2.2	< 0.5	< 43	< 10

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. "NM" = Not Measured.

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- G The reported result is estimated due to duplicate precision outside control limits.
- E Value exceeds calibration range.

Table 4-4
Chemical Testing Results - Indoor and Outdoor Air
Sampling, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		NP														NW			
		04516-50T-NP		04516-NP		045162-NP		04516-50T-NP		045162-50Tufts-NP		045162-50Tufts-NP2		045162-50T-NP		04516-50T-NW		04516-NW	
		5/1/07		5/14/07		6/28/07		8/28/07		10/4/07		10/4/07		12/7/07		5/1/07		5/14/07	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																		
Volatile Organic Compounds (VOCs)	TO-15																		
Carbon tetrachloride		0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	0.75 J	0.12 J	< 1.3	< 0.20
1,1-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		1.8	0.26	7.5	1.1	12 G	1.7 G	14	2.0	3.9	0.57	7.5	1.1	2.2	0.33	33	4.8	11	1.6
1,1,1-Trichloroethane		0.38 J	0.070 J	0.98 J	0.18 J	2.0	0.36	2.0	0.36	0.50 J	0.091 J	1.2	0.22	< 1.1	< 0.20	2.6	0.48	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	1.6	0.3	1.6	0.29	< 1.1	< 0.20	0.75 J	0.14 J	< 1.1	< 0.20	4.1	0.76	< 1.1	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. Refer to Figure 4-3 for air sampling locations.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - G The reported result is estimated due to duplicate precision outside control limits.
 - P The reported result is estimated due to field duplicate precision outside control limits.

Table 4-4
Chemical Testing Results - Indoor and Outdoor Air
Sampling, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units: Method		NW (Continued)								NO											
		045162-NW 6/28/07		04516-50T-NW 8/28/07		045162-50Tufts-NW 10/4/07		045162-50T-NW 12/7/07		04516-50T-NO 5/1/07		04516-NO 5/14/07		045162-NO 6/28/07		04516-50T-NO 8/28/07		045162-50Tufts-NO 10/4/07		045162-50T-NO 12/7/07	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		0.69 J	0.11 J	0.69 J	0.11 J	< 1.3	< 0.20	0.63 J	0.10 J	0.69 J	0.11 J	< 1.3	< 0.20	0.61 J	0.097 J	0.63 J	0.10 J	< 1.3	< 0.20	0.75 J	0.12 J
1,1-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		15 G	2.2 G	45	6.6	12	1.8	12	1.7	34	5.0	6.4	0.94	8.8 G	1.3 G	8.8	1.3	4.3	0.64	12	1.8
1,1,1-Trichloroethane		0.60 J	0.11 J	4.0	0.73	< 1.1	< 0.20	< 1.1	< 0.20	3.0	0.55	< 1.1	< 0.20	0.87 J	0.16 J	0.93 J	0.17 J	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	2.8	0.53	< 1.1	< 0.20	< 1.1	< 0.20	5.4	1.0	< 1.1	< 0.20	0.70 J	0.13 J	0.91 J	0.17 J	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. Refer to Figure 4-3 for air sampling locations.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - G The reported result is estimated due to duplicate precision outside control limits.
 - P The reported result is estimated due to field duplicate precision outside control limits.

Table 4-4
Chemical Testing Results - Indoor and Outdoor Air
Sampling, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		SO												NC							
		04516-50T-SO		04516-50T-SO		045162-SO		04516-50T-SO		045162-50Tufts-SO		045162-50T-SO		04516-50T-NC		04516-50T-NC		045162-NC		04516-50T-NC	
		5/1/07		5/14/07		6/28/07		8/28/07		10/4/07		12/7/07		5/1/07		5/14/07		6/28/07		8/28/07	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)	TO-15																				
Carbon tetrachloride		0.75 J	0.12 J	< 1.3	< 0.20	0.69 J	0.11 J	0.61 J	0.097 J	< 1.3	< 0.20	0.62 J	0.098 J	0.75 J	0.12 J	< 1.3	< 0.20	0.60 J	0.096 J	0.59 J	0.093 J
1,1-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		38	5.6	14	2.0	18 G	2.7 G	15	2.2	5.5	0.81	11	1.60	47	7.0	30	4.4	16 G	2.3 G	69.2	10.2
1,1,1-Trichloroethane		1.9	0.34	< 1.1	< 0.20	0.55 J	0.10 J	1.4	0.25	< 1.1	< 0.20	< 1.1	< 0.20	1.4	0.25	< 1.1	< 0.20	< 1.1	< 0.20	3.7	0.67
Trichloroethene (TCE)		3.4	0.64	< 1.1	< 0.20	0.81 J	0.15 J	1.4	0.26	< 1.1	< 0.20	< 1.1	< 0.20	2.0	0.37	< 1.1	< 0.20	< 1.1	< 0.20	3.4	0.63

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. Refer to Figure 4-3 for air sampling locations.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - G The reported result is estimated due to duplicate precision outside control limits.
 - P The reported result is estimated due to field duplicate precision outside control limits.

Table 4-4
Chemical Testing Results - Indoor and Outdoor Air
Sampling, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		NC (Continued)				GA												SP			
		045162-50Tufts-NC 10/4/07		045162-50T-NC 12/7/07		04516-50T-GA 5/1/07		04516-50T-GA 5/14/07		045162-GA 6/28/07		04516-50T-GA 8/28/07		045162-50Tufts-GA 10/4/07		045162-50T-GA 12/707		04516-50T-SP 5/1/07		04516-50T-SP 5/14/07	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Carbon tetrachloride		< 1.3	< 0.20	0.63 J	0.10 J	0.75 J	0.12 J	< 1.3	< 0.20	0.69 J	0.11 J	0.69 J	0.11 J	< 1.3	< 0.20	0.63 J	0.10 J	0.69 J	0.11 J	0.63 J	0.10 J
1,1-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		5.5	0.81	10	1.5	50	7.3	26	3.9	22 G	3.2 G	79.3	11.7	6.2	0.91	10	1.5	3.7	0.54	2.8	0.4
1,1,1-Trichloroethane		< 1.1	< 0.20	< 1.1	< 0.20	1.5	0.28	< 1.1	< 0.20	< 1.1	< 0.20	5.2	0.95	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	2.4	0.44	< 1.1	< 0.20	< 1.1	< 0.20	4.4	0.82	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. Refer to Figure 4-3 for air sampling locations.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - G The reported result is estimated due to duplicate precision outside control limits.
 - P The reported result is estimated due to field duplicate precision outside control limits.

Table 4-4
Chemical Testing Results - Indoor and Outdoor Air
Sampling, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		SP (Continued)										SC									
		045162-SP 6/28/07		04516-50T-SP 8/28/07		045162-50Tufts-SP 10/4/07		045162-50Tufts-SPL 10/4/07		045162-50T-SP 12/7/07		04516-50T-SC 5/1/07		04516-50T-SC 5/14/07		045162-SC 6/28/07		04516-50T-SC 8/28/07		045162-50Tufts-SC1 10/4/07	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs) TO-15																					
Carbon tetrachloride		< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	0.75 J	0.12 J	< 1.3	< 0.20
1,1-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		1.8 G	0.26 G	160	23.6	1.3 J	0.19 J	9.5	1.4	2.0	0.29	43	6.4	23	3.4	18 GP	2.6 GP	66	9.7	6.0	0.88
1,1,1-Trichloroethane		< 1.1	< 0.20	16	2.9	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	1.3	0.24	< 1.1	< 0.20	0.50 J	0.092 J	4.7	0.87	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	12	2.2	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	2.0	0.37	< 1.1	< 0.20	< 1.1	< 0.20	3.8	0.70	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. Refer to Figure 4-3 for air sampling locations.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - G The reported result is estimated due to duplicate precision outside control limits.
 - P The reported result is estimated due to field duplicate precision outside control limits.

Table 4-4
Chemical Testing Results - Indoor and Outdoor Air
Sampling, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts
7

Sample Location:		SC (Continued)						IA											
Sample Name:		045162-50Tufts-SC2		045162-50Tufts-SC3		045162-50Tufts-SC4		045162-50T-SC		04516-50T-IA		04516-50T-IA		045162-IA		04516-50T-IA		045162-50T-IA	
Sample Date:		010/4/07		10/4/07		10/4/07		12/7/07		5/1/07		5/14/07		6/28/07		8/28/07		12/7/07	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																		
Volatile Organic Compounds (VOCs)		TO-15																	
Carbon tetrachloride		< 1.3	< 0.20	0.60 J	0.096 J	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	0.63 J	0.10 J	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20
1,1-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethene (PCE)		5.9	0.87	5.7	0.84	5.4	0.80	11	1.6	8.1	1.2	6.8	1.0	10 GP	1.5 GP	63	9.3	10.0	1.5
1,1,1-Trichloroethane		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	1.2	0.22	< 1.1	< 0.20	< 1.1	< 0.20	4.4	0.81	< 1.1	< 0.20
Trichloroethene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	1.6	0.29	< 1.1	< 0.20	< 1.1	< 0.20	3.6	0.67	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. Refer to Figure 4-3 for air sampling locations.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - G The reported result is estimated due to duplicate precision outside control limits.
 - P The reported result is estimated due to field duplicate precision outside control limits.

Table 4-5
Summary of Meteorological Data During Air Sampling Events, October 1, 2007 - March 31, 2008, 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Sample Date	Associated Sample ID	Outside Temperature (°F)		Outside Barometric Pressure (in. Hg)		Inside Temperature (°F)		Inside Barometric Pressure (in. Hg)		Prevailing Wind Direction		General Weather Conditions		Significant precipitation within 12 hours prior to sampling?
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
12/7/2007	SC	26.3	37.2	30.41	30.40	45.0	56.7	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/6/2007	IA	26.3	37.2	30.41	30.40	45.0	46.7	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	GA	26.3	37.1	30.41	30.40	43.0	43.1	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	SP	26.3	37.2	30.41	30.40	29.1	37.2	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	NP	26.3	37.2	30.41	30.40	26.3	37.2	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	NO	26.3	37.2	30.41	30.40	46.0	48.2	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	NW	26.3	37.2	30.41	30.40	47.0	48.7	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	NC	26.3	37.2	30.41	30.40	47.0	47.3	30.41	30.40	Calm	Calm	Partly cloudy	Cloudy	No
12/7/2007	SO	26.3	37.2	30.41	30.40	47.0	49.0	30.41	30.38	Calm	Calm	Partly cloudy	Cloudy	No
10/4/2007	NP	77.1	86.7	30.19	30.20	NM	NM	NM	NM	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	NP	77.1	86.7	30.19	30.20	NA	NA	NA	NA	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	NP2	77.1	86.7	30.19	30.20	NA	NA	NA	NA	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	SP	77.1	86.7	30.19	30.20	NA	NA	NA	NA	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	SP2	77.1	86.7	30.19	30.20	NA	NA	NA	NA	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	NO	77.1	86.7	30.19	30.20	71.4	NM	30.19	NM	N	S	Sunny, Breezy	Clear, Breezy	No
10/4/2007	SO	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	NW	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	NC	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	SC1	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	SC2	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	SC3	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	SC4	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No
10/4/2007	GA	77.1	86.7	30.19	30.20	71.4	77.3	30.19	30.16	N	S	Sunny, Breezy	Sunny, Breezy	No

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.
5. NM = Not Measured.
6. NA = Not Applicable.

Table 5-1

Soil Boring and Monitoring Well Summary
50 Tufts Street
Somerville, Massachusetts

Location Name	Location Type	Installed By	Completion Date	Method	Well Diameter (in)	Well Screen Interval (ft bgs)	Ground Surface Elevation (ft NAVD)	Screened Strata	Total Depth (ft)	Comment
GEO-1	Monitoring Well	GeolInsight	8/12/04	HSA	2	5 - 20	26.1	Sand	20	
GEO-2	Monitoring Well	GeolInsight	8/12/04	HSA	2	5 - 20	27.1	Sand	20	
GEO-3	Monitoring Well	GeolInsight	8/13/04	HSA	2	5 - 20	25.9	Sand	20	
GEO-4	Monitoring Well	GeolInsight	8/13/04	HSA	2	4 - 19	22.1	Sand	19	
GEO-5	Monitoring Well	GeolInsight	8/16/04	HSA	2	5 - 20	20.5	Sand, Silt and Clay	20	
GEO-6	Monitoring Well	GeolInsight	8/13/04	HSA	2	5 - 20	18.1	Sand	20	
GEO-7	Soil Boring Only	GeolInsight	8/16/04	HSA	NA	NA	unknown	NA	13	
MW-1	Monitoring Well	unknown	unknown	unknown	1	unknown	26.2	unknown	unknown	Boring/well log not provided
MW-2	Monitoring Well	unknown	unknown	unknown	1	unknown	25.5	unknown	unknown	Boring/well log not provided
MW-3	Monitoring Well	unknown	unknown	unknown	1	unknown	25.4	unknown	unknown	Boring/well log not provided
SH-1	Monitoring Well	SHA	6/21/02	Geoprobe	1	9 - 14	29.7	Sand	14	
SH-2	Monitoring Well	SHA	6/21/02	Geoprobe	1	7 - 14	29.7	Sand	14	
SH-3	Monitoring Well	SHA	6/21/02	Geoprobe	1	8 - 13	29.8	Sand	13	
SH-4	Monitoring Well	SHA	6/21/02	Geoprobe	1	11 - 16	29.8	Sand	16	
SH-5	Monitoring Well	SHA	6/21/02	Geoprobe	1	8 - 13	29.7	Sand and Gravel	13	
SH-B1	Soil Boring Only	SHA	6/21/02	Geoprobe	NA	NA	unknown	NA	15	
SH-B2	Soil Boring Only	SHA	6/21/02	Geoprobe	NA	NA	unknown	NA	12	
SH-MW1	Monitoring Well	SHA	7/3/02	HSA/Rock core	2	10 - 30	24.5	Silt, Clay and Bedrock	30	
SH-MW2	Monitoring Well	SHA	7/3/02	HSA	2	10 - 25	24.7	Silt and Clay	25	
SH-MW3	Monitoring Well	SHA	7/3/02	HSA	2	10 - 24	22.9	Silt and Clay	24	
Soil Boring-1	Soil Boring Only	GeolInsight	8/12/04	HSA	NA	NA	unknown	NA	11	Possibly SB1 on Fig. 5-1
Soil Boring-2	Soil Boring Only	GeolInsight	8/12/04	HSA	NA	NA	unknown	NA	10	Possibly SB2 on Fig. 5-1
MW101	Monitoring Well	GEI	5/1/06	HSA	2	9 - 19	27.0	Sand and Gravel	19	
MW102	Monitoring Well	GEI	5/1/06	HSA	2	6 - 16	19.2	Sand, Gravel and Clay	16	
MW103	Monitoring Well	GEI	5/1/06	HSA	2	6 - 16	19.8	Sand, Gravel and Silt	16	
MW104	Monitoring Well	GEI	5/24/06	Geoprobe	1	5 - 15	17.9	Sand, Gravel and Silt	15	
MW105	Monitoring Well	GEI	5/2/06	HSA	2	19 - 29	39.6	Sand, Gravel and Silt	29	
MW106	Monitoring Well	GEI	1/5/07	Geoprobe	2	9 - 19	26.9	Sand, Gravel, Silt	21	
MW107	Monitoring Well	GEI	1/5/07	Geoprobe	2	2 - 12	15.1	Silt	21	
MW108	Monitoring Well	GEI	1/5/07	Geoprobe	2	2 - 12	13.1	Sand, Gravel, and Silt	12	

General Notes:

- Information on locations installed by GeolInsight and SHA based on boring and monitoring well logs prepared by GeolInsight and SHA, except for well diameters, which were measured in the field.
- in = inches.
- ft = feet.
- bgs = below ground surface.
- NAVD = North American Datum of 1988.
- SHA = Sanborn Head & Associates, Inc.
- NA = Not Applicable.
- Monitoring wells MW-1 through MW-2 were installed prior to SHAs investigation, which was conducted in 2002.
- HSA = Hollow Stem Auger.
- DEP = Massachusetts Department of Environmental Protection.

Table 5-1

Soil Boring and Monitoring Well Summary

50 Tufts Street

Somerville, Massachusetts

Location Name	Location Type	Installed By	Completion Date	Method	Well Diameter (in)	Well Screen Interval (ft bgs)	Ground Surface Elevation (ft NAVD)	Screened Strata	Total Depth (ft)	Comment
MW109	Monitoring Well	GEI	1/5/07	Geoprobe	2	3 - 13	24.7	Sand and Gravel	15.25	Dry
MW110	Monitoring Well	GEI	1/8/07	Geoprobe	2	3 - 13	16.0	Silty Sand, Silt	16	
MW111	Monitoring Well	GEI	1/8/07	Geoprobe	2	4 - 14	19.4	Sand, Gravel, and Silt	16	
MW112	Monitoring Well	GEI	1/8/07	Geoprobe	2	3 - 10	18.6	Silty Sand, Silt	10	
MW112-A	Monitoring Well	GEI	3/10/07	HSA	2	4 - 19	18.1	Sand, Gravel, and Silt	19	
MW113	Monitoring Well	GEI	2/15/07	Geoprobe	2	10 - 20	26.6	Sand, Gravel, and Silt	20	
MW114	Monitoring Well	GEI	2/15/07	Geoprobe	2	7 - 17	29.8	Sand, Gravel, and Silt	17	
MW115	Monitoring Well	GEI	2/21/07	HSA	2	10 - 25	27.3	Sand, Gravel, and Silt	25	
MW116	Monitoring Well	GEI	3/10/07	HSA/Air Rotary	2	5 - 15	13.0	Bedrock	15	
MW117S	Monitoring Well	GEI	6/20/07	HSA	2	5 - 20	22.2	Fill, Silt	20	
MW117T	Monitoring Well	GEI	6/22/07	Drive&Wash/Rock Core	2	35 - 45	22.2	Till	45	
MW117D	Monitoring Well	GEI	6/20/07	HSA/Drive & Wash	2	60 - 70	22.1	Bedrock	70	
MW118S	Monitoring Well	GEI	7/2/07	HSA	2	3 - 14	15.7	Fill/Silt	14	
MW118T	Monitoring Well	GEI	6/28/07	HSA/Drive & Wash	2	39.5 - 49.5	15.7	Till	49.5	
MW118D	Monitoring Well	GEI	7/2/07	Drive&Wash/Rock Core	2	70 - 80	15.6	Bedrock	80	
MW119S	Monitoring Well	GEI	8/8/07	HSA	2	5 - 20	12.1	Fill/Silt	20	
MW119T	Monitoring Well	GEI	8/8/07	Drive & Wash	2	42 - 47	12.1	Till	48.5	
MW120S	Monitoring Well	GEI	8/8/07	HSA	2	5 - 20	12.9	Fill, Silt	20	
MW120D	Monitoring Well	GEI	8/9/07	Drive & Wash	2	28 - 38	13.1	Bedrock	38	
MW121S	Monitoring Well	GEI	10/10/07	HSA	2	5 - 20	13.0	Fill	20	
MW121D	Monitoring Well	GEI	10/12/07	Drive & Wash/Rock Core	2	32.1 - 47.1	13.1	Bedrock	48	
MW122	Monitoring Well	GEI	1/24/08	Drive & Wash	2	4 - 16	16.4	Silt	16	
MW201	Monitoring Well	GEI	7/11/07	Geoprobe	2	11 - 21	27.9	Sand and Gravel	21	
MW202	Monitoring Well	GEI	7/10/07	Geoprobe	2	10.5 - 20.5	28.1	Fill, Sand and Gravel	20.5	
MW203	Monitoring Well	GEI	7/11/07	Geoprobe	2	6 - 18	22.1	Till	18	
MW-CS-1	Monitoring Well	unknown	unknown	unknown	2	unknown	41.4	unknown	unknown	
MW DEP A	Piezometer	DEP	5/30/07	Hand Tools	1	NA	unknown	unknown	unknown	
MW DEP B	Piezometer	DEP	5/30/07	Hand Tools	1	NA	unknown	unknown	unknown	
MW DEP C	Piezometer	DEP	5/30/07	Hand Tools	1	NA	unknown	unknown	unknown	

General Notes:

- Information on locations installed by GeoInsight and SHA based on boring and monitoring well logs prepared by GeoInsight and SHA, except for well diameters, which were measured in the field.
- in = inches.
- ft = feet.
- bgs = below ground surface.
- NAVD = National Geodetic Vertical Datum of 1929.
- SHA = Sanborn Head & Associates, Inc.
- NA = Not Applicable.
- Monitoring wells MW-1 through MW-2 were installed prior to SHA's investigation, which was conducted in 2002.
- HSA = Hollow Stem Auger.
- DEP = Massachusetts Department of Environmental Protection.

Table 5-2
Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

Sample Location: Well Screen Interval (ft bgs): Sample Date: Collected By:			GEO-1 5 to 20 8/16/2004 Geolnsight	GEO-1 5 to 20 5/23/2006 GEI	GEO-1 5 to 20 10/5/2006 GEI	GEO-1 5 to 20 1/17/2007 GEI	GEO-1 5 to 20 1/17/2007 (FD) GEI	GEO-1 5 to 20 4/12/2007 GEI	GEO-2 5 to 20 8/16/2004 Geolnsight	GEO-2 5 to 20 5/23/2006 GEI	GEO-2 5 to 20 10/5/2006 GEI	GEO-2 5 to 20 1/17/2007 GEI	GEO-2 5 to 20 4/12/2007 GEI	GEO-3 5 to 20 8/16/2004 Geolnsight	GEO-3 5 to 20 5/24/2006 GEI	GEO-3 5 to 20 5/24/2006 GEI	GEO-3 5 to 20 10/4/2006 GEI	GEO-3 5 to 20 10/4/2006 (FD) GEI	GEO-3 5 to 20 1/16/2007 GEI	GEO-3 5 to 20 4/13/2007 GEI	GEO-4 4 to 19 8/16/2004 Geolnsight	GEO-4 4 to 19 5/24/2006 GEI	GEO-4 4 to 19 10/4/2006 GEI	GEO-4 4 to 19 1/16/2007 GEI	
Analyte	Method	Units																							
Volatile Organic Compounds (VOCs)																									
Acetone	8260	µg/l	< 400	< 5.0	< 5.0	< 5.0	< 5.0	9.7	487	< 5.0	< 5.0	< 25	< 5.0	< 1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2000	< 5.0	< 5.0	< 100	
Benzene			< 20	< 0.50	< 0.50	< 0.50	< 0.50	0.27 J	< 5	< 0.50	< 0.50	< 2.5	< 0.50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 100	< 0.50	< 0.50	< 10	
Bromodichloromethane			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Bromoform			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Butanone, 2- (MEK)			< 200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 25	< 5.0	< 500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 5.0	< 5.0	< 100	
Carbon disulfide			< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 4.5 J	< 5.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 500	< 5.0	< 5.0	< 100	
Carbon tetrachloride			< 20	3.6	1.4	2.3	2.3	5.4	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Chlorobenzene			< 20	0.76 J	0.86 J	0.76 J	0.84 J	0.77 J	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Chloroethane			< 40	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 10	< 2.0	< 100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 200	< 2.0	< 2.0	< 40	
Chloroform			< 20	< 1.0	< 1.0	0.60 J	0.61 J	1.5	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Chloromethane			< 40	< 2.0	3.7	< 2.0	1.8 J	6.2	< 10	< 2.0	< 2.0	< 10	< 2.0	< 100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 100	< 1.0	< 1.0	< 20	
Dichlorobenzene, 1,3-			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 2.0	< 2.0	< 40	
Dichloroethane, 1,1-			< 20	4.3	2.9	5.4	10.6	< 5	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Dichloroethane, 1,2-			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	2.2	2	< 5.0	2.5	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Dichloroethene, 1,1-			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Dichloroethene, cis-1,2-			39.8	989	1330 E	247	241	8980	23.2	14.2	26.3	25.2	11.5	108	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Trans-1,2-Dichloroethene			< 20	4.3	2.3	3.3	< 1.0	8.7	< 5	< 1.0	1.6	9	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Dichloropropane, 1,2-			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Dioxane, 1,4-			< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5	< 2.0	< 2.0	< 10	< 2.0	< 50	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 100	< 2.0	< 2.0	< 40	
Ethylbenzene			< 13000	< 25	< 25 R	< 25	< 25	< 25	NT	< 25	< 25 R	< 130	< 25	NT	< 25	< 25	< 25 R	< 25 R	< 25 R	< 25	NT	< 25	< 25 R	< 500	
Hexanone, 2-			< 20	< 1.0	< 1.0	< 1.0	< 1.0	0.41 J	< 5	< 1.0	< 1.0	3.1 J	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Isopropyl benzene			< 200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 25	< 5.0	< 500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 5.0	< 5.0	< 100	
Methyl tert-butyl ether			< 20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5.0	< 5.0	< 25	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 100	
Methylene chloride			< 20	64.2	5.3 J+	2.5	2.7	6.9 J+	37.6	79.9	12.8 J+	9.8	16.5	< 50	< 1.0	< 1.0	1.2 J+	1.1 J+	< 1.0	< 1.0	< 100	< 1.0	1.5 J+	< 20	
Naphthalene			< 200	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 50	< 2.0	< 2.0	< 10	< 2.0	< 500	< 2.0	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 2.0	< 2.0	< 40	
Propylbenzene, n-			< 20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5.0	< 5.0	8.3 J	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 100	
Tetrachloroethane, 1,1,1,2-			< 20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5.0	< 5.0	< 25	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 100	
Tetrachloroethene			< 20	5.7	< 3.0 J	5.7	5.8	15.6	< 5	< 5.0	< 5.0	< 25	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	0.84 J	< 100	
Tetrahydrofuran			1880	18600	19500	17300	18000	48500	285	131	693	1420	120	4020	162	157	2720	2340	529	93.2	12900	6690	24100	16700	
Tertiary-amyl methyl ether			NT	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NT	< 10	< 10	< 10	< 10	< 10	< 10	NT	< 10	< 10	< 200	
Toluene			NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 10	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 40	
Trichloroethane, 1,1,1-			< 20	1.2	0.72 J	1.1	0.99 J	2.1	< 5	< 1.0	< 1.0	3.4 J	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Trichloroethane, 1,1,1,2-			1720	19100	9620	13300	14200	42500 J+	490	125	376	867	147 J+	204	4	4.4	78.2 J+	77.2 J+	16.2	< 1.0	1170	< 1.0	321 J+	113	
Trichloroethene			< 20	< 1.0	< 1.0	0.94 J	0.99 J	3.8	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Trichloroethene			898	10000	5530	9080	9660	30600	60	27.3	170	602	36	507	14.4	209	720	235	70.2	86.8	< 100	< 1.0	< 1.0	< 20	
Trimethylbenzene, 1,2,4-			< 20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5.0	< 5.0	4.7 J	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 100	
Trimethylbenzene, 1,3,5-			< 20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5.0	< 5.0	< 25	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 100	
Vinyl chloride			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Xylene, m,p-			< 40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	11.2	< 1.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 1.0	< 1.0	< 20	
Xylene, o-			< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5	< 1.0	< 1.0	< 5.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	
Xylene, Total			NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	11.2	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 20	
Metals																									
Arsenic	6010	µg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Iron			NT	NT	NT	NT	NT	NT	NT	NT	NT	< 100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Others																									
Methane	8015	µg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethane	8015	µg/l										< 10													
Ethene	8015	µg/l										< 10													
Alkalinity	E310.1	µg/l										104000													

General Notes:

1. **General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. "<" = The analyte was not detected at a concentration above the specified reporting limit.
3. ft bgs = feet below ground surface.
4. µg/l = micrograms per liter.
5. SHA = Sanborn Head & Associates, Inc.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.

Qualifying Notes:

- Qualifying Notes:**
- E The reported value is estimated; reported from undiluted sample run due to sample non-homogeneity.
 - F+ The result has a high bias due to matrix spike recovery above upper control limits.
 - F- The result has a low bias due to matrix spike recovery below lower control limits.
 - G The result is estimated due to duplicate precision outside control limits.
 - H The result has a high bias due to calibration verification standard recovery above the upper control limits.
 - J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - M The result is above the calibration range and is estimated.
 - R The result is rejected due to gross exceedance of minimum response factor criteria.
 - T The reported value is estimated due to Continuing Calibration Check standard percent difference outside of control limits.

Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. "<" = The analyte was not detected at a concentration above the specified reporting limit.
3. ft bgs = feet below ground surface.
4. µg/l = micrograms per liter.
5. SHA = Sanborn Head & Associates, Inc.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.

Qualifying Notes:

- E The reported value is estimated; reported from undiluted sample run due to sample non-homogeneity.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- H The result has a high bias due to calibration verification standard recovery above the upper control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- M The result is above the calibration range and is estimated.
- R The result is rejected due to gross exceedance of minimum response factor criteria.
- T The reported value is estimated due to Continuing Calibration Check standard percent difference outside of control limits.

Table 5-2

Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

Sample Location: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW101 9 to 19 4/13/2007 (FD) GEI	MW102 6 to 16 5/24/2006 GEI	MW102 6 to 16 10/5/2006 GEI	MW102 6 to 16 1/16/2007 GEI	MW102 6 to 16 4/13/2007 GEI	MW102 6 to 16 7/18/2007 GEI	MW102 6 to 16 10/10/2007 GEI	MW102 6 to 16 1/10/2008 GEI	MW103 6 to 16 5/24/2006 GEI	MW103 6 to 16 8/7/2006 GEI	MW103 6 to 16 10/5/2006 GEI	MW103 6 to 16 1/16/2007 GEI	MW103 6 to 16 1/16/2007 GEI	MW103 6 to 16 1/18/2007 GEI	MW103 6 to 16 4/13/2007 GEI	MW104 5 to 15 5/23/2006 GEI	MW104 5 to 15 10/5/2006 GEI	MW104 5 to 15 4/13/2007 GEI	MW104 5 to 15 7/19/2007 GEI	MW104 5 to 15 10/15/2007 GEI	MW104 5 to 15 1/11/2008 GEI	MW105 19 to 29 5/24/2006 GEI	
Analyte	Method	Units																							
Volatile Organic Compounds (VOCs)																									
Acetone	8260	µg/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Benzene			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5	< 0.50	0.6	< 0.50	NT	0.43 J	< 0.50	< 0.50
Bromodichloromethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Bromoform			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Butanone,2- (MEK)			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Carbon disulfide			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Carbon tetrachloride			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	6.1	< 2.0	< 10	2.7	10.3	4.7	6.9	5.6	2.3	< 2.0
Chloroform			1.8	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.65 J	< 1.0	0.62 J	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Chloromethane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0
Dichlorobenzene,1,3-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Dichloroethane,1,1-			1.6	< 1.0	0.88 J	< 1.0	< 1.0	0.42 J	2.1	4.1	27.2	3.7	13	11.5	57.1	10.1	7.9	33	98.9	46.8	68.3	86.6	38.7	< 1.0	< 1.0
Dichloroethane,1,2-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichloroethene,1,1-			4.6 G	6.3	50.2	30	< 1.0	23.6	39.7	51.8	13.4	2	6.5	4.3	2.9	4.3	8	3.3	9.4	10	2.6	4.5	1.7	< 1.0	< 1.0
Dichloroethene, cis-1,2-			2.1 G	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	3	2.5	< 1.0	244	< 1.0	< 5.0	198	435	250	194	279	148	< 1.0	< 1.0
Trans-1,2-Dichloroethene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	2.2	9.3	3.6	2.5	4.1	3.5	< 1.0	< 1.0
Dichloropropane,1,2-			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0
Dioxane,1,4-			< 25	< 25	< 25 R	< 25	< 25	NT	< 50	< 25	< 25	< 25	< 25 R	< 25	< 25	< 25	< 130	< 25	< 25 R	< 25	NT	< 25	< 25	< 25	< 25
Ethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Hexanone,2-			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Isopropyl benzene			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Methyl tert-butyl ether			< 1.0	< 1.0	4.5 J+	2.7	< 1.0	NT	17.3	24.2	< 1.0	< 1.0	0.65 J, J+	< 1.0	1	< 1.0	< 5.0	< 1.0	10.0 J+	0.93 J, J+	NT	7.2	1.1	< 1.0	< 1.0
Methylene chloride			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	4.3	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0
Naphthalene			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Propylbenzene, n-			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Tetrachloroethane,1,1,1,2-			90.7	200	898	692	20.3	524	685	606	2600	592	1510	1200 F+	29.3	1250 F-	1510	60.4	160	39.6	31.2	49.3	12.1	7.8	< 1.0
Tetrachloroethene			< 10	< 10	< 10	< 10	< 10	NT	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 5.0	< 10	< 10	< 10	NT	< 10	< 10	< 10
Tetrahydrofuran			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0
Tertiary-amyl methyl ether			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Toluene			43.0 J+	< 1.0	65.7 J+	32.6	< 1.0	26.3	69.8	121	34	4.4	14.4 J+	17.6	23.2	21	< 5.0	21	138	5.6 J+	28	89.8	12.5	< 1.0	< 1.0
Trichloroethane,1,1,1-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethane,1,1,2-			45.7	15.6	89.1	57	2	46.1	61.0	65.3	109	24	60.4	37	49.1	38	58.7	63.4	110	51.4	40.4	< 1.0	27	< 1.0	< 1.0
Trichloroethene			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	0.34 J	< 5.0
Trimethylbenzene, 1,2,4-			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0
Trimethylbenzene, 1,3,5-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	23.7	36.4	40.4	38.2	68.0	26.4	< 1.0	< 1.0
Vinyl chloride			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Xylene, m,p-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Xylene, o-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Xylene, Total			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0
Metals																									
Arsenic	6010	µg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 10	NT	NT	NT	NT	NT	NT	NT	NT	NT
Iron			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 100	NT	NT	NT	NT	NT	NT	NT	NT	NT
Others																									
Methane	8015	µg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 10	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethane	8015	µg/l														< 10									
Ethene	8015	µg/l																							

Table 5-2
Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

Sample Location: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW105 19 to 29 10/5/2006 GEI	MW105 19 to 29 1/17/2007 GEI	MW105 19 to 29 4/16/2007 GEI	MW105 19 to 29 7/19/2007 GEI	MW105 19 to 29 10/10/2007 GEI	MW105 19 to 29 1/9/2008 GEI	MW106 9 to 19 1/18/2007 GEI	MW106 9 to 19 4/13/2007 GEI	MW106 9 to 19 7/19/2007 GEI	MW106 9 to 19 10/10/2007 GEI	MW106 9 to 19 1/10/2008 GEI	MW107 2 to 12 1/18/2007 GEI	MW107 2 to 12 4/13/2007 GEI	MW107 2 to 12 7/18/2007 GEI	MW107 2 to 12 10/10/2007 GEI	MW107 2 to 12 1/10/2008 GEI	MW108 2 to 12 1/18/2007 GEI	MW108 2 to 12 4/16/2007 GEI	MW108 2 to 12 7/18/2007 GEI	MW108 2 to 12 10/10/2007 GEI	MW108 2 to 12 1/10/2008 GEI	MW109 3 to 13 1/18/2007 GEI		
Analyte	Method	Units																								
Volatile Organic Compounds (VOCs)																										
Acetone	8260	µg/l	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	69.9	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene			< 0.50	< 0.50	< 0.50	NT	< 0.50	< 0.50	< 0.50	< 0.50	NT	< 0.50	< 0.50	< 0.50	< 0.50	NT	< 0.50	< 0.50	< 0.50	< 0.50	NT	< 0.50	< 0.50	< 0.50	< 0.50	
Bromodichloromethane			< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Bromoform			< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Butanone,2- (MEK)			< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	0.75 J	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Carbon disulfide			< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	7.7	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon tetrachloride			< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Chlorobenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Chloroethane			< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroform			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane			< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	1.1	1.2	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Dichlorobenzene,1,3-			< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Dichloroethane,1,1-			< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Dichloroethane,1,2-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	
Dichloroethene,1,1-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.6	4.3	0.52 J	< 1.0	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	
Dichloroethene, cis-1,2-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.4	6.3	3.4	3.9	4.1	3.2	3.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trans-1,2-Dichloroethene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Dichloropropane,1,2-			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Dioxane,1,4-		< 25 R	< 25	< 25	< 25	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Hexanone,2-		< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Isopropyl benzene		< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Methyl tert-butyl ether		< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	12.2	12.1	NT	252	78.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Methylene chloride		< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 1.0	0.21 J	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	3.5	
Naphthalene		< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Propylbenzene, n-		< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Tetrachloroethane,1,1,1,2-		< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Tetrachloroethene		0.69 J	0.67 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0 F-	1.2	2.3	1.7	2.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	178 F-	
Tetrahydrofuran		< 10	< 10	< 10	NT	< 10	< 10	< 10	< 10	< 10	NT	< 10	< 10	< 10	< 10	NT	< 10	< 10	< 10	< 10	NT	< 10	< 10	< 10	< 10	
Tertiary-amyl methyl ether		< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	
Trichloroethane,1,1,1-		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	15.3	1.5 J+	6.4	11.3	14.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.77 J	
Trichloroethane,1,1,2-		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Trichloroethene		3.4	3.2	1.5	1.5	1.6	2.2	3.7	4.8	3.6	4.4	4.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.5	
Trimethylbenzene, 1,2,4-		< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Trimethylbenzene, 1,3,5-		< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0						

Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. "< " = The analyte was not detected at a concentration above the specified reporting limit.
3. ft bgs = feet below ground surface.
4. µg/l = micrograms per liter.
5. SHA = Sanborn Head & Associates, Inc.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.

- E The reported value is estimated; reported from undiluted sample run due to sample non-homogeneity.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- H The result has a high bias due to calibration verification standard recovery above the upper control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- M The result is above the calibration range and is estimated.
- R The result is rejected due to gross exceedance of minimum response factor criteria.
- T The reported value is estimated due to Continuing Calibration Check standard percent difference outside of control limits.

Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. "< " = The analyte was not detected at a concentration above the specified reporting limit.
3. ft bgs = feet below ground surface.
4. µg/L = micrograms per liter.
5. SHA = Sanborn Head & Associates, Inc.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.

Continuing Calibration Check

- E The reported value is estimated; reported from undiluted sample run due to sample non-homogeneity.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- H The result has a high bias due to calibration verification standard recovery above the upper control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- M The result is above the calibration range and is estimated.
- R The result is rejected due to gross exceedance of minimum response factor criteria.
- T The reported value is estimated due to Continuing Calibration Check standard percent difference outside of control limits.

Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. " $<$ " = The analyte was not detected at a concentration above the specified reporting limit.
3. ft bgs = feet below ground surface.
4. $\mu\text{g/l}$ = micrograms per liter.
5. SHA = Sanborn Head & Associates, Inc.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.

Qualifying Notes:

E The reported value is estimated; reported from undiluted sample run due to sample non-homogeneity.

F+ The result has a high bias due to matrix spike recovery above upper control limits.

F- The result has a low bias due to matrix spike recovery below lower control limits.

G The result is estimated due to duplicate precision outside control limits.

H The result has a high bias due to calibration verification standard recovery above the upper control limits.

J The reported result is below the laboratory reporting limit and is estimated.

J+ The reported result is estimated.

M The result is above the calibration range and is estimated.

R The result is rejected due to gross exceedance of minimum response factor criteria.

T The reported value is estimated due to Continuing Calibration Check standard percent difference outside of control limits.

Table 5-2
Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

Sample Location: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW120D 28 to 38 8/22/2007 GEI	MW120D 28 to 38 10/12/2007 GEI	MW120D 28 to 38 1/17/2008 GEI	MW120S 5 to 20 8/22/2007 GEI	MW120S 5 to 20 10/12/2007 GEI	MW120S 5 to 20 1/15/2008 GEI	MW121D 32.1 to 47.1 10/22/2007 GEI	MW121D 32.1 to 47.1 1/15/2008 GEI	MW121S 5 to 20 10/22/2007 GEI	MW121S 5 to 20 1/15/2008 GEI	MW122 4 to 16 1/30/2008 GEI	MW201 11 to 21 7/19/2007 GEI	MW201 11 to 21 10/12/2007 GEI	MW201 11 to 21 1/11/2008 GEI	MW202 10.5 to 20.5 7/19/2007 GEI	MW202 10.5 to 20.5 10/12/2007 GEI	MW202 10.5 to 20.5 1/11/2008 GEI	MW203 6 to 18 7/19/2007 GEI	MW-3 unknown 7/1/2002 SHA	MW-3 unknown 8/9/2004 Geolnsight	MW-3 unknown 5/23/2006 GEI	MW-3 unknown 1/17/2007 GEI
Analyte	Method	Units																						
Volatile Organic Compounds (VOCs)																								
Acetone	8260	µg/l	<5.0	<5.0 J+	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 J+	NT	<5.0 J+	<5.0	NT	<5.0 J+	<5.0	NT	<2500	<2000	<5.0	<5.0
Benzene			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	<0.50	<0.50	NT	<0.50	<0.50	NT	<250	<100	0.37 J	0.71
Bromodichloromethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<250	<100	<1.0	<1.0
Bromoform			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<250	<100	<1.0	<1.0
Butanone,2- (MEK)			<5.0	<5.0 J+	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0 J+	NT	<5.0 J+	<5.0	NT	<5.0 J+	<5.0	NT	<2500	<1000	<5.0	<5.0	
Carbon disulfide			<5.0	<5.0	<5.0	0.56 J+	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<2500	<500	<5.0	<5.0
Carbon tetrachloride			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	<100	<1.0	<1.0	
Chlorobenzene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	<100	<1.0	0.52 J	
Chloroethane			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<500	<200	<2.0	<2.0	
Chloroform			<1.0	<1.0	<1.0	1.9 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	0.47 J	0.40 J	NT	<1.0	<1.0	NT	<380	<100	2.1	3.4
Chloromethane			12.0 J+	<2.0	<2.0	10.3 J+	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NT	<2.0	<2.0	NT	<2.0	<2.0	NT	<1200	<200	<2.0	<2.0
Dichlorobenzene,1,3-			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<1200	<100	<1.0	<1.0
Dichloroethane,1,1-			23.0 J+	26.0	23.2	1.1 J+	4.3	<1.0	46.3	55.3	<1.0	<1.0	19.3	<1.0	0.66 J	<1.0	0.50 J	<1.0	<1.0	22.2	<380	<100	<1.0	<1.0
Dichloroethane,1,2-			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	<100	<1.0	<1.0	
Dichloroethene,1,1-			15.6 J+	18.9	14.3	<1.0	<1.0	<1.0	13.2	<1.0	<1.0	<1.0	4.0	4.7	4.9	5.2	1.1	<1.0	<1.0	76.4	<250	<100	6.9	5.6
Dichloroethene, cis-1,2-			0.70 J+	<1.0	1.7	<1.0	<1.0	<1.0	3.9	11.8	<1.0	<1.0	60.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	102	<250	<100	<1.0	1.9
Trans-1,2-Dichloroethene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.70 J	<1.0	<1.0	0.87 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<380	<100	<1.0	<1.0
Dichloropropane,1,2-			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NT	<2.0	<2.0	NT	<2.0	<2.0	NT	<880	<100	<2.0	<2.0
Dioxane,1,4-			<25	<25	<25 J+	<25	<25	<25	<25	<25	<25	<25	<25	NT	<25	<25	NT	<25	<25	NT	NT	NT	<25	<25
Ethylbenzene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<250	<100	<1.0	<1.0
Hexanone,2-			<5.0	<5.0 J+	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 J+	NT	<5.0 J+	<5.0	NT	<5.0 J+	<5.0	NT	<2500	<1000	<5.0	<5.0
Isopropyl benzene			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<250	<100	<5.0	<5.0
Methyl tert-butyl ether			6.8 J+	3.9	3.2	<1.0	<1.0	<1.0	3.0	3.8	<1.0	<1.0	3.3	NT	75.8	240	NT	<1.0	<1.0	NT	<500	<100	<1.0	<1.0
Methylene chloride			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NT	<2.0	<2.0	NT	<2.0	<2.0	NT	<2500	<1000	<2.0	<2.0
Naphthalene			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.2	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<1200	<100	<5.0	<5.0
Propylbenzene, n-			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<250	<100	<5.0	<5.0
Tetrachloroethane,1,1,1,2-			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<250	<100	1.9 J	4.4 J
Tetrachloroethene			93.5 J+	120	113	<1.0	<1.0	0.97 J	182	258	<1.0	<1.0	477	5.1	19.6	25.8	17.2	14.6	21.8	15500	16000	16200	22100	51900
Tetrahydrofuran			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	NT	NT	<1.0	<1.0
Tertiary-amyl methyl ether			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NT	4.6	17.7	NT	<2.0	<2.0	NT	NT	NT	<2.0	<2.0
Toluene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.51 J	1.6	<1.0	<1.0	0.48 J	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<380	<100	0.62 J	<1.0
Trichloroethane,1,1,1-			10.3 J+	4.3	3.2	<1.0	<1.0	<1.0	1.2	1.3	<1.0	<1.0	1.4	9.8	36.3	32.9	12.5	4.4	4.2	1710	<250	<100	39.1	68.7
Trichloroethane,1,1,2-			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.66 J	<380	<100	<1.0	<1.0
Trichloroethene			32.6	40.1	34.7	<1.0	<1.0	0.39 J	59.6	136	<1.0	<1.0	177	4.5	7.2	8.2	2.2	1.5	1.6	979	<250	<100	86.6	247
Trimethylbenzene,1,2,4-			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<1200	<100	<5.0	<5.0
Trimethylbenzene,1,3,5-			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NT	<5.0	<5.0	NT	<5.0	<5.0	NT	<1200	<100	<5.0	<5.0
Vinyl chloride			<1.0	0.38 J	0.35 J	<1.0	<1.0	<1.0	0.39 J	<1.0	<1.0	<1.0	0.32 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500	<100	<1.0	<1.0
Xylene, m,p-			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<250	<200	<1.0	<1.0
Xylene, o-			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	<250	<100	<1.0	<1.0
Xylene, Total			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	NT	<1.0	<1.0	NT	NT	NT	<1.0	<1.0
Metals																								
Arsenic	6010	µg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Iron			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Others																								
Methane	8015	µg/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethane	8015	µg/l																						
Ethene	8015	µg/l																						
Alkalinity	E310.1	µg/l																						
Chloride	E325.3	µg/l																						
Nitrogen, Nitrate	E353.2	µg/l																						
Nitrate & Nitrite as N	E353.2	µg/l																						
Nitrogen, Nitrite	E354.1	µg/l																						
Sulfate	E375.4	µg/l																						
Sulfide	E376.1	µg/l																						
Surfactants	E425.1	µg/l																						
Total Organic Carbon	E415.1	µg/l																						

General Notes:
1

Table 5-2
Chemical Testing Results - Groundwater Samples
50 Tufts Street
Somerville, Massachusetts

Sample Location: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW-3 unknown 4/17/2007 GEI	MW-CS1 unknown 5/23/2007 GEI	SH-1 9 to 14 8/9/2004 Geolnsight	SH-3 8 to 13 8/9/2004 Geolnsight	SH-4 11 to 16 5/25/2006 GEI	SH-MW1 10 to 30 7/8/2002 SHA	SH-MW1 10 to 30 5/23/2006 GEI	SH-MW1 10 to 30 10/4/2006 GEI	SH-MW1 10 to 30 1/16/2007 GEI	SH-MW1 10 to 30 4/12/2007 GEI	SH-MW2 10 to 25 7/8/2002 SHA	SH-MW2 10 to 25 8/16/2004 Geolnsight	SH-MW2 10 to 25 5/23/2006 GEI	SH-MW2 10 to 25 10/4/2006 GEI	SH-MW2 10 to 25 1/16/2007 GEI	SH-MW2 10 to 25 4/16/2007 GEI	SH-MW2 10 to 25 7/19/2007 GEI	SH-MW3 10 to 24 7/8/2002 SHA	SH-MW3 10 to 24 5/23/2006 GEI	SH-MW3 10 to 24 10/4/2006 GEI	SH-MW3 10 to 24 1/17/2007 GEI	SH-MW3 10 to 24 4/12/2007 GEI	
Analyte	Method	Units																							
Volatile Organic Compounds (VOCs)																									
Acetone	8260	µg/l	< 130	< 5.0	< 4000	< 2000	30	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 2000	< 5.0	< 5.0	< 5.0	< 10	NT	< 2500	< 5.0	< 5.0	< 500	< 5.0	
Benzene			< 13	< 0.50	< 200	< 100	< 0.50	< 250	< 0.50	0.61	< 0.50	0.33 J	< 25	< 100	< 0.50	< 0.50	< 0.50	< 1.0	NT	< 250	< 0.50	< 0.50	< 50	< 0.50	
Bromodichloromethane			< 25	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 250	< 1.0	< 1.0	< 100	< 1.0	
Bromofom			< 25	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 250	< 1.0	< 1.0	< 100	< 1.0	
Butanone,2- (MEK)			< 130	< 5.0	< 2000	< 1000	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 1000	< 5.0	< 5.0	< 5.0	< 10	NT	< 2500	< 5.0	< 5.0	< 500	< 5.0	
Carbon disulfide			< 130	< 0.54 J	< 1000	< 500	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 500	< 5.0	< 5.0	< 5.0	< 10	NT	< 2500	< 5.0	< 5.0	< 500	< 5.0	
Carbon tetrachloride			< 25	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 250	< 1.0	< 1.0	< 100	< 1.0	
Chlorobenzene			< 25	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	0.52 J	< 1.0	< 1.0	< 25	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 250	< 1.0	< 1.0	< 100	< 1.0	
Chloroethane			< 50	< 2.0	< 400	< 200	< 2.0	< 500	< 2.0	< 2.0	< 2.0	< 2.0	< 50	< 200	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 500	< 2.0	< 2.0	< 200	< 2.0	
Chloroform			< 25	< 1.0	< 200	< 100	13.3	< 380	2.1	4.6	1.7	3.4	< 38	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 380	0.88 J	0.81 J	< 100	1.1	
Chloromethane			< 50	< 2.0	< 400	< 200	< 2.0	< 1200	< 2.0	< 2.0	< 2.0	< 2.0	< 120	< 200	< 2.0	< 2.0	< 2.0	< 4.0	NT	< 1200	< 2.0	< 2.0	< 200	< 2.0	
Dichlorobenzene,1,3-			< 25	< 1.0	< 200	< 100	< 1.0	< 1200	< 1.0	< 1.0	< 1.0	< 1.0	< 120	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 1200	< 1.0	< 1.0	< 100	< 1.0	
Dichloroethane,1,1-			< 25	< 1.0	< 200	< 100	15.9	< 380	11.4	12	8.5	12.7	< 38	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 380	21.6	36.5	< 100	24.5	
Dichloroethane,1,2-			< 25	< 1.0	< 200	< 100	103	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 250	< 1.0	< 1.0	< 100	< 1.0	
Dichloroethene,1,1-			< 25	< 1.0	< 200	< 100	556 E	< 250	11.7	19.3	9	24.4	< 25	< 100	10.1	45	9.8	2.1	23.8	< 250	91	84.4	< 100	91.3	
Dichloroethene, cis-1,2-			< 25	< 1.0	< 200	< 100	16.6	< 250	2.1	7.3	11.2	2.7	< 25	< 100	3.9	45.7	14.7	1.4 J	26.1	< 250	37.2	102	< 100	39.8	
Trans-1,2-Dichloroethene			< 25	< 1.0	< 200	< 100	< 1.0	< 380	< 1.0	< 1.0	< 1.0	< 1.0	< 38	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 380	< 1.0	1.1	< 100	< 1.0	
Dichloropropane,1,2-			< 50	< 2.0	< 200	< 100	< 2.0	< 880	< 2.0	< 2.0	< 2.0	< 2.0	< 88	< 100	< 2.0	< 2.0	< 2.0	< 4.0	NT	< 880	< 2.0	< 2.0	< 200	< 2.0	
Dioxane,1,4-			< 630	< 25	NT	NT	57700	NT	< 25	< 25 R	< 25	< 25	NT	NT	< 25	< 25 R	< 25	< 50	NT	NT	< 25	< 25 R	< 2500	< 25	
Ethylbenzene			< 25	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 250	< 1.0	< 1.0	180	< 1.0	
Hexanone,2-			< 130	< 5.0	< 2000	< 1000	5.3	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 1000	< 5.0	< 5.0	< 5.0	< 10	NT	NT	< 5.0	< 5.0	< 500	< 5.0	
Isopropyl benzene			< 130	< 5.0	< 200	< 100	< 5.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	< 250	< 5.0	< 5.0	< 500	< 5.0	
Methyl tert-butyl ether			< 25	66.4	< 200	< 100	< 1.0	< 500	< 1.0	0.71 J, J+	< 1.0	0.74 J, J+	< 50	< 100	< 1.0	8.7 J+	1.4	< 2.0	NT	< 500	5.1	8.2 J+	< 100	2.4 J+	
Methylene chloride			71.5	< 2.0	< 2000	< 1000	12.2	< 2500	< 2.0	< 2.0	< 2.0	< 2.0	< 250	< 1000	< 2.0	< 2.0	< 2.0	2.3 J	NT	< 2500	< 2.0	< 2.0	< 200	< 2.0	
Naphthalene			< 130	< 5.0	< 200	< 500	< 5.0	< 1200	< 5.0	< 5.0	< 5.0	< 5.0	< 120	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	< 1200	< 5.0	< 5.0	< 500	< 5.0	
Propylbenzene, n-			< 130	< 5.0	< 200	< 100	< 5.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	< 250	< 5.0	< 5.0	< 500	< 5.0	
Tetrachloroethane, 1,1,1,2-			< 130	< 5.0	< 200	< 100	40.4	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	< 250	< 5.0	< 5.0	< 500	< 5.0	
Tetrachloroethene			6550	< 1.0	49700	19500	7240	21000	16200	28300	31700 F+	48900	2000	7170	1730	7190	2880 F+	726	3320	26000	16900	28300	29700	34000	
Tetrahydrofuran			< 250	< 10	NT	NT	< 10	NT	< 10	< 10	< 10	< 10	NT	NT	< 10	< 10	< 10	< 20	NT	NT	< 10	< 10	< 1000	< 10	
Tertiary-amyl methyl ether			< 50	< 2.0	NT	NT	1.9 J	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 2.0	< 2.0	< 2.0	< 4.0	NT	NT	< 2.0	< 2.0	< 200	< 2.0	
Toluene			< 25	< 1.0	< 200	< 100	1.8	< 380	0.61 J	0.47 J	< 1.0	0.36 J	< 38	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	< 380	< 1.0	< 1.0	< 100	< 1.0	
Trichloroethane,1,1,1-			11.1 J	< 1.0	1150	2070	7610	< 250	34.5	69.7 J+	31.4	27.9 J+	660	1550	158	1330	360	44.1	539	1200	989	1680	806	621 E, J+	
Trichloroethane,1,1,2-			< 25	< 1.0	< 200	< 100	172	< 380	< 1.0	< 1.0	< 1.0	< 1.0	< 38	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 380	< 1.0	< 1.0	< 100	< 1.0	
Trichloroethene			13.8 J	< 1.0	906	1440	7580	< 500	141	317	141	159	190	572	92.8	486	171	26.5	354	870	482	1030	709	1030	
Trimethylbenzene, 1,2,4-			< 130	< 5.0	< 200	< 100	< 5.0	< 1200	< 5.0	< 5.0	< 5.0	< 5.0	< 120	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	< 1200	< 5.0	< 5.0	< 500	< 5.0	
Trimethylbenzene, 1,3,5-			< 130	< 5.0	< 200	< 100	< 5.0	< 1200	< 5.0	< 5.0	< 5.0	< 5.0	< 120	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	< 1200	< 5.0	< 5.0	< 500	< 5.0	
Vinyl chloride			< 25	< 1.0	< 200	< 100	< 1.0	< 500	< 1.0	< 1.0	< 1.0	0.55 J	< 50	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 500	< 1.0	< 1.0	< 100	0.83 J	
Xylene, m,p-			< 25	< 1.0	< 400	< 200	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 200											

Table 5-3
Chemical Testing Results - Sub-Surface Soil Samples
50 Tufts Street
Somerville, Massachusetts

Location Name: Sample Name: Sample Depth (ft): Sample Date:			50 Tufts SHB1-S3 8 to 12 6/21/2002	Garden GARDEN-1 (2'-2.5') 2.0 to 2.5 3/30/2007	Garden GARDEN-2 (2'-2.5') 2.0 to 2.5 3/30/2007	GEO-1 GEO-1 (0-2) 8/12/2004	GEO-1 GEO-1 (6-8) 8/12/2004	GEO-4 GEO-4 (11-13) 8/12/2004	MW101 MW101S1 2 to 3 4/27/2006	MW101 MW101S4 13.5 to 15.5 5/1/2006	MW101 MW101S5 15.5 to 17.5 5/1/2006	MW101 MW101S6 17.5 to 19.5 5/1/2006	MW102 MW102S1 2 to 3 4/27/2006	MW102 MW102S5 12.5 to 14.6 5/1/2006	MW103 MW103S1 2 to 3 4/27/2006	MW103 MW103S2 6 to 8 5/1/2006	MW103 MW103S6 14 to 16 5/1/2006
Analyte	Method	Units															
Volatile Organic Compounds (VOCs)																	
Benzene	8260	mg/kg	< 0.071	NT	NT	< 0.0673	< 0.095	< 0.0556	< 0.033	< 0.025	< 0.026	< 0.023	< 0.029	< 0.021	< 0.03	< 0.023	< 0.021
Butanone,2- (MEK)			1.1	NT	NT	< 0.673	< 0.95	< 0.556	< 0.33	< 0.25	< 0.26	< 0.23	< 0.29	< 0.21	< 0.3	< 0.23	< 0.21
Dichloroethane,1,1-			< 0.1	< 0.098	< 0.099	< 0.0673	< 0.095	< 0.0556	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Dichloroethene, cis-1,2-			< 0.071	< 0.098	< 0.099	< 0.0673	< 0.095	< 0.0556	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Ethylbenzene			< 0.071	NT	NT	< 0.0673	< 0.095	< 0.0556	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Methyl-2-pentanone,4- (MIBK)			0.86 J	NT	NT	< 0.673	< 0.95	< 0.556	< 0.33	< 0.25	< 0.26	< 0.23	< 0.29	< 0.21	< 0.3	< 0.23	< 0.21
Methylene chloride			0.1 J	NT	NT	< 0.673	< 0.95	< 0.556	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Naphthalene			< 0.35	NT	NT	< 0.0673	< 0.095	< 0.0556	< 0.33	< 0.25	< 0.26	< 0.23	< 0.29	< 0.21	< 0.3	< 0.23	< 0.21
Tetrachloroethene (PCE)			7.8	< 0.098	< 0.099	2.45	8.07	0.111	0.989	0.0649 J	0.054 J	0.0699 J	< 0.12	0.164	< 0.12	< 0.091	0.722
Toluene			< 0.1	NT	NT	< 0.0673	< 0.095	< 0.0556	< 0.33	< 0.25	< 0.26	< 0.23	< 0.29	< 0.21	< 0.3	< 0.23	< 0.21
Trichloroethane,1,1,1-			2.7	< 0.098	< 0.099	0.145	1.33	0.0795	0.0767 J	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Trichloroethene (T CE)			4.4	< 0.098	< 0.099	0.164	1.12	< 0.0556	0.358	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Xylene, m,p-			< 0.071	NT	NT	< 0.135	< 0.19	< 0.111	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Xylene, o-			< 0.071	NT	NT	< 0.0673	< 0.095	< 0.0556	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Total Xylenes			NT	NT	NT	NT	NT	NT	< 0.13	< 0.1	< 0.1	< 0.093	< 0.12	< 0.083	< 0.12	< 0.091	< 0.082
Volatile Petroleum Hydrocarbons (VPH)																	
C5-C8 Aliphatics	MAVPH	mg/kg	2.95	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Extractable Petroleum Hydrocarbons (EPH)																	
C9-C18 Aliphatics	MAEPH	mg/kg	< 11.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatics	MAEPH	mg/kg	< 11.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																	
Solids, Percent	1603M	%	NT	88.8	89.3	NT	NT	NT	75.2	86	84.4	83.9	82.3	91.6	85.9	92.2	87.4
Specific Conductivity	E120.1	µmhos/cm	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Organic Carbon	9060	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
pH	9045	s.u.	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

- General Notes:**
- 1. Generally, only analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - 2. "<" = The analyte was not detected at a conc entration above the specified reporting limit.
 - 3. mg/kg = milligrams per kilogram.
 - 4. µmhos/cm = micro-ohms per centimeter.
 - 5. s.u. = standard units.
 - 6. ND = The analyte was not detected above the l aboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
 - 7. NT = Not Tested

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - B The reported result is attributed to sampling or laboratory contamination.
 - F+ The analysis instrument had an above the limit of recovery.

Table 5-3
Chemical Testing Results - Sub-Surface Soil Samples
50 Tufts Street
Somerville, Massachusetts

Location Name: Sample Name:			MW104 MW104-S1	MW104 MW104-S2	MW104 MW104-S3C	MW105 MW105S1	MW105 MW105S9	MW106 B106 (12-14')	MW106 B106 (16-18')	MW106 B106-VAC- COMP	MW106 B106-VAC- GRAB	MW107 B107 (20-21')	MW107 B107 (7-9')	MW107 B107-VAC- COMP	MW107 B107-VAC- GRAB	MW108 B108 (7-8')	MW108 B108-VAC- COMP
Sample Depth (ft): Sample Date:			0 to 5 5/17/2006	5 to 10 5/17/2006	10 to 15 5/17/2006	2 to 3 4/28/2006	23 to 25 5/2/2006	12 to 14 1/5/2007	16 to 18 1/5/2007	2 to 4 1/3/2007	3 1/3/2007	20 to 21 1/5/2007	7 to 9 1/5/2007	2 to 4 1/3/2007	3 1/3/2007	7 to 8 1/5/2007	2 to 4 1/3/2007
Analyte	Method	Units															
Volatile Organic Compounds (VOCs)																	
Benzene	8260	mg/kg	< 0.032	< 0.023	< 0.026	< 0.038	< 0.021	< 0.022	< 0.021	NT	< 0.029	< 0.017	< 0.03	NT	< 0.025	< 0.028	NT
Butanone,2- (MEK)			< 0.32	< 0.23	< 0.26	< 0.38	< 0.21	< 0.22	< 0.21	NT	< 0.29	< 0.17	< 0.3	NT	< 0.25	< 0.28	NT
Dichloroethane,1,1-			< 0.13	< 0.092	1.39	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	0.145	< 0.12	NT	< 0.099	< 0.11	NT
Dichloroethene, cis-1,2-			< 0.13	< 0.092	1.44	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Ethylbenzene			0.0416 J	< 0.092	< 0.1	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Methyl-2-pentanone,4- (MIBK)			< 0.32	< 0.23	< 0.26	< 0.38	< 0.21	< 0.22	< 0.21	NT	< 0.29	< 0.17	< 0.3	NT	< 0.25	< 0.28	NT
Methylene chloride			< 0.13	< 0.092	< 0.1	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Naphthalene			< 0.32	< 0.23	< 0.26	< 0.38	< 0.21	< 0.22	< 0.21	NT	< 0.29	< 0.17	< 0.3	NT	< 0.25	< 0.28	NT
Tetrachloroethene (PCE)			0.949	4.25	0.564	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Toluene			0.0757 J	0.0216 J	< 0.26	< 0.38	< 0.21	< 0.22	< 0.21	NT	< 0.29	< 0.17	< 0.3	NT	< 0.25	< 0.28	NT
Trichloroethane,1,1,1-			< 0.13	< 0.092	0.781	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Trichloroethene (T CE)			< 0.13	0.093	0.593	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Xylene, m,p-			< 0.125 J	< 0.092	< 0.1	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Xylene, o-			0.0571 J	< 0.092	< 0.1	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Total Xylenes			0.182	< 0.092	< 0.1	< 0.15	< 0.083	< 0.087	< 0.083	NT	< 0.11	< 0.069	< 0.12	NT	< 0.099	< 0.11	NT
Volatile Petroleum Hydrocarbons (VPH)																	
C5-C8 Aliphatics	MAVPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Extractable Petroleum Hydrocarbons (EPH)																	
C9-C18 Aliphatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																	
Solids, Percent	1603M	%	90.1	87.9	85.5	88.5	90.7	86.7	85.9	85.3	85.3	93.3	76.5	79.8	79.8	76.5	86.7
Specific Conductivity	E120.1	µmhos/cm	NT	NT	NT	NT	NT	1420	883	137	NT	214	205	142	NT	900	109
Total Organic Carbon	9060	mg/kg	NT	NT	NT	NT	NT	< 1100	< 1100	28200	NT	< 1000	< 1300	4090	NT	6650	4430
pH	9045	s.u.	NT	NT	NT	NT	NT	7.1	6.8	6.9	NT	7.1	7.5	7.3	NT	7	6.8

- General Notes:**
- Generally, only analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - "<" = The analyte was not detected at a concentration above the specified reporting limit.
 - mg/kg = milligrams per kilogram.
 - µmhos/cm = micro-ohms per centimeter.
 - s.u. = standard units.
 - ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
 - NT = Not Tested

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - B The reported result is attributed to sampling or laboratory contamination.
 - F+ The analysis instrument had an above the limit of recovery.

Table 5-3
Chemical Testing Results - Sub-Surface Soil Samples
50 Tufts Street
Somerville, Massachusetts

Location Name: Sample Name: Sample Depth (ft): Sample Date:			MW108 B108-VAC- GRAB 3 1/3/2007	MW109 B109 (13-15') 13 to 15 1/5/2007	MW109 B109 (7-9') 7 to 9 1/5/2007	MW109 B109-VAC- COMP 2 to 4 1/3/2007	MW109 B109-VAC- GRAB 3 1/3/2007	MW110 B100 7 to 9 1/8/2007	MW110 B110 (13-14') 13 to 14 1/8/2007	MW110 B110 (7-9') 7 to 9 1/8/2007	MW110 B110-VAC- COMP 2 to 4 1/4/2007	MW110 B110-VAC- GRAB 3 1/4/2007	MW111 B111 (13-15') 13 to 15 1/8/2007	MW111 B111 (7-9') 7 to 9 1/8/2007	MW111 B111-VAC- COMP 2 to 4 1/4/2007	MW111 B111-VAC- GRAB 3 1/4/2007	MW112 B112 (6-7') 6 to 7 1/8/2007
Analyte	Method	Units															
Volatile Organic Compounds (VOCs)																	
Benzene	8260	mg/kg	< 0.021	< 0.019	< 0.022	NT	< 0.026	< 0.027	< 0.023	< 0.029	NT	< 0.025	< 0.019	< 0.026	NT	< 0.022	< 0.028
Butanone,2- (MEK)			< 0.21	< 0.19	< 0.22	NT	< 0.26	< 0.27	< 0.23	< 0.29	NT	< 0.25	< 0.19	< 0.26	NT	< 0.22	< 0.28
Dichloroethane,1,1-			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11
Dichloroethene, cis-1,2-			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11
Ethylbenzene			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11
Methyl-2-pentanone,4- (MIBK)			< 0.21	< 0.19	< 0.22	NT	< 0.26	< 0.27	< 0.23	< 0.29	NT	< 0.25	< 0.19	< 0.26	NT	< 0.22	< 0.28
Methylene chloride			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	0.0176 J	< 0.1	NT	< 0.087	< 0.11
Naphthalene			< 0.21	< 0.19	< 0.22	NT	< 0.26	< 0.27	< 0.23	< 0.29	NT	< 0.25	< 0.19	< 0.26	NT	< 0.22	< 0.28
Tetrachloroethene (PCE)			< 0.084	0.242	< 0.088	NT	0.324	< 0.11	< 0.092	< 0.11	NT	< 0.1	3.15	< 0.1	NT	< 0.087	< 0.11
Toluene			< 0.21	< 0.19	< 0.22	NT	< 0.26	< 0.27	< 0.23	< 0.29	NT	< 0.25	< 0.19	< 0.26	NT	< 0.22	< 0.28
Trichloroethane,1,1,1-			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11
Trichloroethene (T CE)			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	0.0469 J	< 0.1	NT	< 0.087	< 0.11
Xylene, m,p-			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11
Xylene, o-			< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11
Total Xylenes	< 0.084	< 0.075	< 0.088	NT	< 0.1	< 0.11	< 0.092	< 0.11	NT	< 0.1	< 0.075	< 0.1	NT	< 0.087	< 0.11		
Volatile Petroleum Hydrocarbons (VPH)																	
C5-C8 Aliphatics	MAVPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Extractable Petroleum Hydrocarbons (EPH)																	
C9-C18 Aliphatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																	
Solids, Percent	1603M	%	86.7	89.2	85.3	79.9	79.9	77.4	84.3	77.3	81	81	90.3	80.1	89.4	89.4	76.5
Specific Conductivity	E120.1	µmhos/cm	NT	254	306	109	NT	606	325	614	262	NT	226	146	107	NT	685
Total Organic Carbon	9060	mg/kg	NT	< 1100	4620	5580	NT	1630	< 1100	3660	4380	NT	< 1100	< 1200	< 1000	NT	< 1300
pH	9045	s.u.	NT	8.2	9.2	5.9	NT	6.5	8	7	6.8	NT	6.8	6.8	8.1	NT	7.2

- General Notes:**
- Generally, only analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - "<" = The analyte was not detected at a concentration above the specified reporting limit.
 - mg/kg = milligrams per kilogram.
 - µmhos/cm = micro-ohms per centimeter.
 - s.u. = standard units.
 - ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
 - NT = Not Tested

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- B The reported result is attributed to sampling or laboratory contamination.
- F+ The analysis instrument had an above the limit of recovery.

Table 5-3
Chemical Testing Results - Sub-Surface Soil Samples
50 Tufts Street
Somerville, Massachusetts

Location Name: Sample Name: Sample Depth (ft): Sample Date:			MW112 B112-VAC- COMP 2 to 4 1/4/2007	MW112 B112-VAC- GRAB 3 1/4/2007	MW112A B112A (0-3') 0 to 3 3/10/2007	MW112A B112A (10-12') 10 to 12 3/10/2007	MW112A B112A (17-19') 17 to 19 3/10/2007	MW113 MW100 11 to 13 2/15/2007	MW113 MW113 (11'-13') 11 to 13 2/15/2007	MW113 MW113 (19'-21') 19 to 21 2/15/2007	MW113 MW113 (2'-4') 2 to 4 2/13/2007	MW114 MW114 (11'-13') 11 to 13 2/15/2007	MW114 MW114 (19'-20') 19 to 20 2/15/2007	MW114 MW114 (2'-4') 2 to 4 2/13/2007	MW115 MW115 (18'-20') 18 to 20 2/15/2007	MW115 MW115 (2'-4') 2 to 4 2/13/2007	MW115 MW115R (19-20') 19 to 20 2/21/2007
Analyte	Method	Units															
Volatile Organic Compounds (VOCs)																	
Benzene	8260	mg/kg	NT	< 0.027	< 0.031	< 0.02	< 0.022	< 0.028	< 0.029	< 0.02	< 0.026	< 0.022	< 0.021	< 0.028	< 0.022	< 0.031	< 0.033
Butanone,2- (MEK)			NT	< 0.27	< 0.31	< 0.2	< 0.22	< 0.28	< 0.29	< 0.2	< 0.26	< 0.22	< 0.21	< 0.28	< 0.22	< 0.31	< 0.33
Dichloroethane,1,1-			NT	< 0.11	0.13 J	< 0.081	0.0265 J	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Dichloroethene, cis-1,2-			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Ethylbenzene			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Methyl-2-pentanone,4- (MIBK)			NT	< 0.27	< 0.31	< 0.2	< 0.22	< 0.28	< 0.29	< 0.2	< 0.26	< 0.22	< 0.21	< 0.28	< 0.22	< 0.31	< 0.33
Methylene chloride			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Naphthalene			NT	< 0.27	< 0.31	< 0.2	< 0.22	< 0.28	< 0.29	< 0.2	< 0.26	< 0.22	< 0.21	< 0.28	< 0.22	< 0.31	0.736
Tetrachloroethene (PCE)			NT	0.11 F+	0.13 J	0.0471 J	1.04	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Toluene			NT	< 0.27	< 0.31	< 0.2	< 0.22	< 0.28	< 0.29	< 0.2	< 0.26	< 0.22	< 0.21	< 0.28	< 0.22	< 0.31	< 0.33
Trichloroethane,1,1,1-			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Trichloroethene (T CE)			NT	< 0.11	< 0.13	< 0.081	0.138	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	< 0.13
Xylene, m,p-			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	0.0945 J
Xylene, o-			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	0.0642 J
Total Xylenes			NT	< 0.11	< 0.13	< 0.081	< 0.087	< 0.11	< 0.12	< 0.08	< 0.11	< 0.09	< 0.084	< 0.11	< 0.089	< 0.13	0.159
Volatile Petroleum Hydrocarbons (VPH)																	
C5-C8 Aliphatics	MAVPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Extractable Petroleum Hydrocarbons (EPH)																	
C9-C18 Aliphatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																	
Solids, Percent	1603M	%	81.8	81.8	80.5	92	85.9	79.6	77.9	87.2	89.9	87	92.7	81.4	86.4	82.5	74.8
Specific Conductivity	E120.1	µmhos/cm	1980	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Organic Carbon	9060	mg/kg	4600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
pH	9045	s.u.	6.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

- General Notes:**
- Generally, only analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - "<" = The analyte was not detected at a concentration above the specified reporting limit.
 - mg/kg = milligrams per kilogram.
 - µmhos/cm = micro-ohms per centimeter.
 - s.u. = standard units.
 - ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
 - NT = Not Tested

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - B The reported result is attributed to sampling or laboratory contamination.
 - F+ The analysis instrument had an above the limit of recovery.

Table 5-3
Chemical Testing Results - Sub-Surface Soil Samples
50 Tufts Street
Somerville, Massachusetts

Location Name: Sample Name:			MW116 B116 (0-3')	MW117D B117D-S2	MW118D B118D-S2	MW119T B119-S4	MW119T B119-S7	MW120D B120-S3	MW120D B120-S7	MW121A MW-121A- Vac1	MW121D MW121D-S3	MW121D MW121D- VAC1	MW121D MW121D- VAC2	MW122 B122-S1	MW122 B122-S3	MW122 B122-S6	MW201 MW201-GP3 (11-13')
Sample Depth (ft): Sample Date:			0 to 3 3/10/2007	8 to 10 6/18/2007	10 to 12 6/25/2007	6 to 8 8/7/2007	14 to 16 8/7/2007	4 to 6 8/8/2007	14 to 16 8/8/2007	0 to 3 10/5/2007	10 to 12 10/6/2007	0 to 3 10/5/2007	0 to 3 10/5/2007	6 to 8 1/23/2008	10 to 12 1/24/2008	16 to 18 1/24/2008	11 to 13 7/11/2007
Analyte	Method	Units															
Volatile Organic Compounds (VOCs)																	
Benzene	8260	mg/kg	< 0.032	< 0.025	0.102	< 0.021	< 0.029	< 0.025	< 0.029	< 0.024	< 0.033	< 0.027	< 0.032	< 0.027	< 0.027	< 0.027	NT
Butanone,2- (MEK)			< 0.32	< 0.25	< 0.3	< 0.21	< 0.29	< 0.25	< 0.29	< 0.24	< 0.33	< 0.27	< 0.32	< 0.27	< 0.27	< 0.27	NT
Dichloroethane,1,1,-			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	< 0.095
Dichloroethene, ci s-1,2-			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	0.0475 J	< 0.095
Ethylbenzene			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	NT
Methyl-2-pentanone,4- (MIBK)			< 0.32	< 0.25	< 0.3	< 0.21	< 0.29	< 0.25	< 0.29	< 0.24	< 0.33	< 0.27	< 0.32	< 0.27	< 0.27	< 0.27	NT
Methylene chloride			< 0.13	0.0952 JB	0.126 B	< 0.086	< 0.12	< 0.1	< 0.12	0.0679 JB	0.121 JB	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	NT
Naphthalene			< 0.32	0.829	< 0.3	< 0.21	< 0.29	< 0.25	< 0.29	< 0.24	< 0.33	< 0.27	< 0.32	< 0.27	< 0.27	< 0.27	NT
Tetrachloroethene (PCE)			< 0.13	< 0.1	0.233	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	0.0257 J	< 0.11	1.31	0.178
Toluene			< 0.32	< 0.25	0.0235 J	< 0.21	< 0.29	< 0.25	< 0.29	< 0.24	< 0.33	< 0.27	< 0.32	< 0.27	< 0.27	< 0.27	NT
Trichloroethane,1,1,1,-			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	< 0.095
Trichloroethene (TCE)			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	0.0925 J	0.0344 J
Xylene, m,p-			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	NT
Xylene, o-			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	NT
Total Xylenes			< 0.13	< 0.1	< 0.12	< 0.086	< 0.12	< 0.1	< 0.12	< 0.097	< 0.13	< 0.11	< 0.13	< 0.11	< 0.11	< 0.11	NT
Volatile Petroleum Hydrocarbons (VPH)																	
C5-C8 Aliphatics	MAVPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Extractable Petroleum Hydrocarbons (EPH)																	
C9-C18 Aliphatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
C11-C22 Aromatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																	
Solids, Percent	1603M	%	83.2	87.1	93.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Specific Conductivity	E120.1	µmhos/cm	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Organic Carbon	9060	mg/kg	NT	4740	9760	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
pH	9045	s.u.	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

- General Notes:**
- Generally, only analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
 - "<" = The analyte was not detected at a concentration above the specified reporting limit.
 - mg/kg = milligrams per kilogram.
 - µmhos/cm = micro-ohms per centimeter.
 - s.u. = standard units.
 - ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
 - NT = Not Tested

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
 - B The reported result is attributed to sampling or laboratory contamination.
 - F+ The analysis instrument had an above the limit of recovery.

Table 5-3
Chemical Testing Results - Sub-Surface Soil Samples
50 Tufts Street
Somerville, Massachusetts

Location Name: Sample Name: Sample Depth (ft): Sample Date:			MW201 MW201-GP4 (15-17') 7/11/2007	MW202 MW202-GP3 (13-15') 7/10/2007	MW202 MW202-GP4 (17-18') 7/10/2007	MW203 MW203-GP2 (8-10') 7/11/2007	MW203 MW203-GP3 (13-15') 7/11/2007	SH-1 SH1-S4 12 to 14 6/21/2002	SH-2 SH-2-S2A 4 to 5 6/21/2002	SH-3 SH-3-S1D 3 to 4 6/21/2002	SH-4 SH-4-S3 8 to 12 6/21/2002	SH-5 SH-5-S2 4 to 8 6/21/2002	SH-MW1 SH-MW1-S3 10 to 12 7/3/2002	SH-MW2 SH-MW2-S4 15 to 17 7/3/2002	SH-MW3 SH-MW3-S4 15 to 17 7/3/2002
Analyte	Method	Units													
Volatile Organic Compounds (VOCs)															
Benzene	8260	mg/kg	NT	NT	NT	NT	NT	< 0.55	< 0.77	< 0.64	< 0.054	< 0.66	< 0.00074	< 0.1	< 0.00088
Butanone,2- (MEK)			NT	NT	NT	NT	NT	< 5.5	< 7.7	< 6.4	< 0.54	< 6.6	< 0.0074	< 1	< 0.0088
Dichloroethane,1,1,-			< 0.089	< 0.096	< 0.085	< 0.11	< 0.081	< 0.82	< 1.2	< 0.96	< 0.08	< 0.99	< 0.0011	< 0.16	< 0.0013
Dichloroethene, cis-1,2-			< 0.089	< 0.096	< 0.085	< 0.11	< 0.081	< 0.55	< 0.77	< 0.64	< 0.054	< 0.66	< 0.00074	< 0.1	< 0.00088
Ethylbenzene			NT	NT	NT	NT	NT	< 0.55	< 0.77	< 0.64	< 0.054	< 0.66	< 0.00074	< 0.1	< 0.00088
Methyl-2-pentanone,4- (MIBK)			NT	NT	NT	NT	NT	< 5.5	< 7.7	< 6.4	< 0.54	< 6.6	< 0.0074	< 1	< 0.0088
Methylene chloride			NT	NT	NT	NT	NT	< 5.5	< 7.7	< 6.4	< 0.54	< 6.6	< 0.0074	< 1	< 0.0088
Naphthalene			NT	NT	NT	NT	NT	< 2.7	< 3.9	< 3.2	< 0.27	< 3.3	< 0.0037	< 0.52	< 0.0044
Tetrachloroethene (PCE)			0.058 J	< 0.096	< 0.085	0.0727 J	0.125	1500	1800	140	4.8	61	0.01	23	0.16
Toluene			NT	NT	NT	NT	NT	< 0.82	< 1.2	< 0.96	< 0.08	< 0.99	0.0037	< 0.16	< 0.0013
Trichloroethane,1,1,1,-			< 0.089	< 0.096	< 0.085	< 0.11	< 0.081	< 0.55	< 0.77	< 0.64	0.37	< 0.66	< 0.00074	0.24	0.0091
Trichloroethene (T CE)			< 0.089	< 0.096	< 0.085	< 0.11	< 0.081	< 0.55	2.0	< 0.64	1.4	< 0.66	< 0.00074	0.32	0.0062
Xylene, m,p-			NT	NT	NT	NT	NT	< 0.55	< 0.77	< 0.64	< 0.054	< 0.66	< 0.00074	< 0.1	< 0.00088
Xylene, o-			NT	NT	NT	NT	NT	< 0.55	< 0.77	< 0.64	< 0.054	< 0.66	< 0.00074	< 0.1	< 0.00088
Total Xylenes			NT	NT	NT	NT	NT	< 0.55	< 0.77	< 0.64	< 0.054	< 0.66	NT	NT	NT
Volatile Petroleum Hydrocarbons (VPH)															
C5-C8 Aliphatics	MAVPH	mg/kg	NT	NT	NT	NT	NT	300	833	43	< 1.75	NT	NT	NT	NT
Extractable Petroleum Hydrocarbons (EPH)															
C9-C18 Aliphatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	< 10.9	144	< 11.2	< 10.6	< 12.8	NT	NT	NT
C11-C22 Aromatics	MAEPH	mg/kg	NT	NT	NT	NT	NT	< 10.9	916	86.4	< 10.6	41	NT	NT	NT
Other															
Solids, Percent	1603M	%	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Specific Conductivity	E120.1	µmhos/cm	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Organic Carbon	9060	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
pH	9045	s.u.	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

General Notes:

- Generally, only analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
- "<" = The analyte was not detected at a concentration above the specified reporting limit.
- mg/kg = milligrams per kilogram.
- µmhos/cm = micro-ohms per centimeter.
- s.u. = standard units.
- ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
- NT = Not Tested

Qualifying Notes:

- J The reported result is below the laboratory reporting limit and is estimated.
- B The reported result is attributed to sampling or laboratory contamination.
- F+ The analysis instrument had an above the limit of recovery.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Location: Sample ID: Sample Date:		MW106 MW106 1/18/2007		MW106 MW900 1/18/2007		MW106 MW106 4/10/2007		MW106 SG-MW106 7/17/2007		MW106 MW106-SG 10/9/2007		MW106 MW106-SG 1/7/2008		MW107 MW107 1/17/2007		MW107 MW107 4/10/2007		MW107 SG-MW107 7/17/2007		MW107 MW107-SG 10/9/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Chloroethane		< 2.6	< 1.0	< 1.1	< 0.40	< 0.53	< 0.20	< 5.3	< 2.0	4.2	1.6	< 0.53	< 0.20	5.5	2.1	7.9	3.0	0.71	0.27	< 0.53	< 0.20
Carbon tetrachloride		< 6.3	< 1.0	< 2.5	< 0.40	< 1.3	< 0.20	< 13	< 2.0	< 1.3	< 0.20	< 1.3	< 0.20	0.94 J	0.15 J	< 1.3	< 0.20	0.94 J	0.15 J	0.58 J	0.092 J
Dichloroethane,1,1-		12	3	3.7	0.92	2.6	0.64	8.1 G	2.0 G	11	2.8	2.9	0.71	97.5	24.1	123	30.3	12	2.9	2.3	0.58
Dichloroethene,1,1-		204	51.5	58.7	14.8	20	5.1	153 G	38.6 G	280	70.7	39	9.8	70.6	17.8	107	27.1	5.2 G	1.3 G	1.1	0.27
Dichloroethane,1,2-		< 4.0	< 1.0	< 1.6	< 0.40	< 0.81	< 0.20	< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Trans-1,2-Dichloroethene		< 4.0	< 1.0	< 1.6	< 0.40	< 0.79	< 0.20	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethene, cis-1,2-		< 4.0	< 1.0	< 1.6	< 0.40	< 0.79	< 0.20	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Trichloroethane,1,1,1-		520	95.3	170	31.2	70.4	12.9	406 G	74.5 G	802	147	169	31.0	4.0	0.74	4.4	0.81	4.1 G	0.76 G	1.3	0.24
Trichloroethane,1,1,2-		< 5.5	< 1.0	< 2.2	< 0.40	< 1.1	< 0.20	< 11	< 2.0	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Tetrachloroethene		47	6.9	16	2.4	14	2.1	203 G	30.0 G	162	23.9	28	4.1	0.95 J	0.14 J	4.2	0.62	15 G	2.2 G	0.95 J	0.14 J
Trichloroethene		69.9	13	22	4.1	18	3.3	127 G	23.6 G	149	27.8	33	6.1	5.9	1.1	4.1	0.76	17 G	3.2 G	2.8	0.53
Vinyl chloride		< 2.6	< 1.0	< 1.0	< 0.40	< 0.51	< 0.20	< 5.1	< 2.0	1.7	0.68	< 0.51	< 0.20	4.1	1.6	5.9	2.3	< 0.51	< 0.20	< 0.51	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
 - G The result is estimated due to duplicate precision outside control limits.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Location: Sample ID: Sample Date:		MW107 MW107-SG 1/7/2008		MW108 MW108 1/17/2007		MW108 MW108 4/10/2007		MW108 SG-MW108 7/17/2007		MW108 MW108-SG 10/9/2007		MW108 MW108-SG 1/7/2008		MW109 MW109 1/17/2007		MW109 MW109 4/10/2007		MW109 MW109-SG 10/9/2007		MW109 MW109-SG 1/7/2008	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Chloroethane		9.0	3.4	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 53	< 20	< 26	< 10	< 5.3	< 2.0	< 11	< 4.0
Carbon tetrachloride		5.7	0.91	0.62 J	0.098 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 130	< 20	< 63	< 10	< 13	< 2.0	< 25	< 4.0
Dichloroethane,1,1-		45.3	11.2	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 81	< 20	< 40	< 10	< 8.1	< 2.0	< 16	< 4.0
Dichloroethene,1,1-		23	5.8	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 79	< 20	< 40	< 10	< 7.9	< 2.0	< 16	< 4.0
Dichloroethane,1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 81	< 20	< 40	< 10	< 8.1	< 2.0	< 16	< 4.0
Trans-1,2-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 79	< 20	< 40	< 10	< 7.9	< 2.0	< 16	< 4.0
Dichloroethene, cis-1,2-		0.52 J	0.13 J	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 79	< 20	< 40	< 10	< 7.9	< 2.0	< 16	< 4.0
Trichloroethane,1,1,1-		1.8	0.33	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	573	105	322	59.1	354	64.9	87.8	16.1
Trichloroethane,1,1,2-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 110	< 20	< 55	< 10	< 11	< 2.0	< 22	< 4.0
Tetrachloroethene		< 1.4	< 0.20	94.9	14	75.9	11.2	90.9	13.4	13	1.9	1.6	0.23	9020	1330	3950	582	18900	2780	3510	518
Trichloroethene		2.4	0.44	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	2.4	0.44	< 1.1	< 0.20	< 110	< 20	31 J	5.7 J	32	5.9	< 21	< 4.0
Vinyl chloride		3.6	1.4	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	< 51	< 20	< 26	< 10	< 5.1	< 2.0	< 10	< 4.0

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets. .
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
 - G The result is estimated due to duplicate precision outside control limits.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Location: Sample ID: Sample Date:		MW110 MW110 1/17/2007		MW111 MW111 1/17/2007		MW111 MW111 4/11/2007		MW111 SG-MW111 7/17/2007		MW111 MW111-SG 10/9/2007		MW111 MW111-SG 1/7/2008		MW112 MW112 1/17/2007		MW112A MW112A 3/20/2007		MW112A MW112A 4/11/2007		MW112A SG-MW112A 7/17/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Chloroethane		< 0.53	< 0.20	< 530	< 200	< 53	< 20	< 530	< 200	< 3200	< 1200	< 53	< 20	< 0.53	< 0.20	< 26	< 10	< 53	< 20	< 5.3	< 2.0
Carbon tetrachloride		< 1.3	< 0.20	< 1300	< 200	< 130	< 20	< 1300	< 200	< 7500	< 1200	< 130	< 20	0.69 J	0.11 J	< 63	< 10	< 130	< 20	< 13	< 2.0
Dichloroethane,1,1-		< 0.81	< 0.20	943	233	67.2 J	16.6 J	< 810	< 200	< 4900	< 1200	< 81	< 20	< 0.81	< 0.20	429	106	155	38.2	359 G	88.6 G
Dichloroethene,1,1-		< 0.79	< 0.20	619 J	156 J	< 79	< 20	< 790	< 200	< 4800	< 1200	< 79	< 20	< 0.79	< 0.20	821	207	318	80.3	777 G	196 G
Dichloroethane,1,2-		< 0.81	< 0.20	< 810	< 200	< 81	< 20	< 810	< 200	< 4900	< 1200	< 81	< 20	< 0.81	< 0.20	< 40	< 10	< 81	< 20	< 8.1	< 2.0
Trans-1,2-Dichloroethene		< 0.79	< 0.20	< 790	< 200	< 79	< 20	< 790	< 200	< 4800	< 1200	< 79	< 20	< 0.79	< 0.20	< 40	< 10	< 79	< 20	< 7.9	< 2.0
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 790	< 200	46.4 J	11.7 J	< 790	< 200	< 4800	< 1200	35 J	8.8 J	< 0.79	< 0.20	< 40	< 10	< 79	< 20	< 7.9	< 2.0
Trichloroethane,1,1,1-		< 1.1	< 0.20	4650	853	715	131	2770	507	12800	2350	519	95.1	< 1.1	< 0.20	85.1	15.6	66.0 J	12.1 J	139 G	25.5 G
Trichloroethane,1,1,2-		< 1.1	< 0.20	< 1100	< 200	< 110	< 20	< 1100	< 200	< 6500	< 1200	< 110	< 20	< 1.1	< 0.20	< 55	< 10	< 110	< 20	< 11	< 2.0
Tetrachloroethene		< 1.4	< 0.20	269000	39700	52600	7760	178000 G	26200 G	1360000	200000	83400	12300	2.8	0.41	6230	919	6240	920	8140	1200
Trichloroethene		< 1.1	< 0.20	2600	484	466	86.7	1520	282	5590 J	1040 J	286	53.2	< 1.1	< 0.20	951	177	505	93.9	2030 G	377 G
Vinyl chloride		< 0.51	< 0.20	< 510	< 200	< 51	< 20	< 510	< 200	< 3100	< 1200	< 51	< 20	< 0.51	< 0.20	< 26	< 10	< 51	< 20	< 5.1	< 2.0

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
 - G The result is estimated due to duplicate precision outside control limits.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Location: Sample ID: Sample Date:		MW112A MW112A-SG 10/9/2007		MW112A MW112A-SG 1/7/2008		MW113 MW113 2/19/2007		MW113 MW113 4/10/2007		MW113 MW113-SG 1/8/2008		MW114 MW114 2/19/2007		MW114 MW114 4/10/2007		MW114 SG-MW114 7/17/2007		MW114 MW114-SG 10/9/2007		MW114 MW114-SG 1/7/2008	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Chloroethane		< 11	< 4.0	< 11	< 4.0	< 5.3	< 2.0	< 0.53	< 0.20	< 0.53	< 0.20	< 5.3	< 2.0	0.77	0.29	< 0.53	< 0.20	3.7	1.4	0.98	0.37
Carbon tetrachloride		< 25	< 4.0	< 25	< 4.0	< 13	< 2.0	< 1.3	< 0.20	0.63 J	0.10 J	< 31	< 5.0	< 1.3	< 0.20	0.69 J	0.11 J	0.88 J	0.14 J	< 1.3	< 0.20
Dichloroethane, 1,1-		1150	284	2280	564	8.1	2	0.57 J	0.14 J	1.5	0.37	< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		2080	524	3400	857	21	5.2	< 0.79	< 0.20	< 0.79	< 0.20	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethane, 1,2-		< 16	< 4.0	< 16	< 4.0	< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Trans-1,2-Dichloroethene		< 16	< 4.0	< 16	< 4.0	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethene, cis-1,2-		40.8	10.3	360	90.9	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Trichloroethane, 1,1,1-		262	48.0	467	85.6	11	2	< 1.1	< 0.20	1.3	0.24	< 11	< 2.0	< 1.1	< 0.20	0.76 J	0.14 J	2.3	0.43	0.52 J	0.095 J
Trichloroethane, 1,1,2-		< 22	< 4.0	< 22	< 4.0	< 11	< 2.0	< 1.1	< 0.20	< 1.1	< 0.20	< 11	< 2.0	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Tetrachloroethene		11300	1660	17400	2570	8.8 J	1.3 J	3.7	0.55	3.8	0.56	< 14	< 2.0	12	1.7	17	2.5	40	5.9	13	1.9
Trichloroethene		3980	740	2930	546	16	3	< 1.1	< 0.20	< 1.1	< 0.20	4	0.75	0.86 J	0.16 J	1.5	0.27	7.5	1.4	1.8	0.33
Vinyl chloride		< 10	< 4.0	24	9.5	< 5.1	< 2.0	< 0.51	< 0.20	< 0.51	< 0.20	< 5.1	< 2.0	0.36 J	0.14 J	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
 - G The result is estimated due to duplicate precision outside control limits.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Location: Sample ID: Sample Date:		MW115 MW115 2/19/2007		MW115 MW115 3/20/2007		MW115 MW115 4/10/2007		MW115 SG-MW115R 7/17/2007		MW115 MW115-SG 10/16/2007		MW115 MW115R-SG 1/7/2008		MW116 MW116 3/20/2007		MW116 MW116 4/11/2007		MW116 SG-MW116 7/17/2007		MW116 MW116-SG 10/9/2007	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method																				
Volatile Organic Compounds (VOCs)		TO-15																			
Chloroethane		< 5.3	< 2.0	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 26	< 10	< 53	< 20	28	10.6	91.8	34.8
Carbon tetrachloride		< 13	< 2.0	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.63 J	0.10 J	2.8	0.44	< 63	< 10	< 130	< 20	< 13	< 2.0	< 13	< 2.0
Dichloroethane,1,1-		< 8.1	< 2.0	0.65 J	0.16 J	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	378	93.5	923	228	1490 G	367 G	2550	629
Dichloroethene,1,1-		< 7.9	< 2.0	1.3	0.33	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	876	221	1570	395	634 G	160 G	436	110
Dichloroethane,1,2-		< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 40	< 10	< 81	< 20	5.7 J	1.4 J	< 8.1	< 2.0
Trans-1,2-Dichloroethene		< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 40	< 10	< 79	< 20	151	38.1	84.8	21.4
Dichloroethene, cis-1,2-		< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	254	64	2620	661	1740 G	438 G	4480	1130
Trichloroethane,1,1,1-		< 11	< 2.0	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	0.60 J	0.11 J	192	35.2	492	90.2	1020 G	187 G	408	74.8
Trichloroethane,1,1,2-		< 11	< 2.0	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 55	< 10	< 110	< 20	< 11	< 2.0	< 11	< 2.0
Tetrachloroethene		42	6.2	12	1.8	< 1.4	< 0.20	71.2	10.5	12	1.8	14	2.0	11100	1630	21500 G	3170 G	25500 G	3760 G	9630	1420
Trichloroethene		15	2.7	< 1.1	< 0.20	< 1.1	< 0.20	0.75 J	0.14 J	1.0 J	0.19 J	2.0	0.38	2140	398	6400	1190	2620 G	488 G	2250	419
Vinyl chloride		< 5.1	< 2.0	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	89	34.8	514	201	64.7	25.3	762	298

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
- G The result is estimated due to duplicate precision outside control limits.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Analyte	Method	Location:		MW116		MW117S		MW117S		MW117S		MW118S		MW118S		MW118S		MW118S		MW119S		MW119S	
		Sample ID:		MW116-SG		SG-MW117S		MW117S-SG		MW117S-SG		SG-MW118S		SG-MW118S		MW118S-SG		MW118S-SG		SG-119S		MW119S-SG	
		Sample Date:		1/30/2008		7/17/2007		10/9/2007		1/8/2008		7/17/2007		8/30/2007		10/9/2007		1/8/2008		8/28/2007		10/16/2007	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv		
Volatile Organic Compounds (VOCs)		TO-15																					
Chloroethane		< 11	< 4.0	< 0.53	< 0.20	< 2.6	< 1.0	< 5.3	< 2.0	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	< 0.53	< 0.20	1.6	0.62	0.90	0.34		
Carbon tetrachloride		< 25	< 4.0	< 1.3	< 0.20	< 6.3	< 1.0	< 13	< 2.0	4.8	0.77	2.2	0.35	2.1	0.34	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20		
Dichloroethane,1,1-		482 G	119 G	4.5	1.1	< 4.0	< 1.0	< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20		
Dichloroethene,1,1-		813 G	205 G	< 0.79	< 0.20	< 4.0	< 1.0	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20		
Dichloroethane,1,2-		< 16	< 4.0	< 0.81	< 0.20	< 4.0	< 1.0	< 8.1	< 2.0	< 0.81	< 0.20	< 0.81	< 0.20	0.40 J	0.098 J	< 0.81	< 0.20	0.85	0.21	1.4	0.35		
Trans-1,2-Dichloroethene		< 16	< 4.0	< 0.79	< 0.20	< 4.0	< 1.0	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20		
Dichloroethene, cis-1,2-		702 G	177 G	< 0.79	< 0.20	< 4.0	< 1.0	< 7.9	< 2.0	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	3	0.75	< 0.79	< 0.20	< 0.79	< 0.20		
Trichloroethane,1,1,1-		206	37.7	1.4	0.26	< 5.5	< 1.0	< 11	< 2.0	8.2	1.5	6	1.1	7.6	1.4	5.4	0.99	< 1.1	< 0.20	< 1.1	< 0.20		
Trichloroethane,1,1,2-		< 22	< 4.0	< 1.1	< 0.20	< 5.5	< 1.0	< 11	< 2.0	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20		
Tetrachloroethene		6600 G	974 G	12	1.7	7.5	1.1	< 14	< 2.0	231	34.1	155	22.9	176	26.0	182	26.8	12	1.7	1.0 J	0.15 J		
Trichloroethene		1830 G	341 G	4.2	0.78	< 5.4	< 1.0	< 11	< 2.0	2.1	0.39	< 1.1	< 0.20	< 1.1	< 0.20	13	2.4	1.2	0.23	0.64 J	0.12 J		
Vinyl chloride		< 10	< 4.0	< 0.51	< 0.20	< 2.6	< 1.0	< 5.1	< 2.0	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	< 0.51	< 0.20	1.2	0.47	0.46 J	0.18 J		

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
 - G The result is estimated due to duplicate precision outside control limits.

Table 5-4
Chemical Testing Results - Soil Vapor Samples
50 Tufts Street
Somerville, Massachusetts

Location: Sample ID: Sample Date:		MW120S SG-120S 8/28/2007		MW120S MW120S-SG 10/16/2007		MW121S MW121S-SG 10/22/2007		MW121S MW121S-SG 1/8/2008		MW122 MW122-SG 1/30/2008		MW201 MW201-SG 10/19/2007		MW201 MW201-SG 1/8/2008		MW202 SVT-MW202S 7/17/2007		MW202 MW202-SG 10/19/2007		MW202 MW202-SG 1/8/2008	
Analyte	Method	Units: µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs) TO-15																					
Chloroethane		0.58	0.22	1.0	0.38	< 0.53	< 0.20	< 0.53	< 0.20	< 11	< 4.0	1.2	0.45	< 11	< 4.0	< 11	< 4.0	2.3	0.88	< 11	< 4.0
Carbon tetrachloride		0.62 J	0.098 J	< 1.3	< 0.20	< 1.3	< 0.20	0.82 J	0.13 J	< 25	< 4.0	< 1.3	< 0.20	< 25	< 4.0	< 25	< 4.0	1.2 J	0.19 J	< 25	< 4.0
Dichloroethane, 1,1-		51.8	12.8	48.2	11.9	2.1	0.52	< 0.81	< 0.20	11 J	2.8 J	3.1	0.76	< 16	< 4.0	< 16	< 4.0	40	9.9	23	5.8
Dichloroethene, 1,1-		1.1	0.29	0.75 J	0.19 J	0.67 J	0.17 J	< 0.79	< 0.20	12 J	3.0 J	109	27.5	59.9	15.1	11 J	2.8 J	326	82.3	468	118
Dichloroethane, 1,2-		0.81	0.2	0.40 J	0.098 J	< 0.81	< 0.20	< 0.81	< 0.20	< 16	< 4.0	< 0.81	< 0.20	< 16	< 4.0	< 16	< 4.0	< 0.81	< 0.20	< 16	< 4.0
Trans-1,2-Dichloroethene		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 16	< 4.0	< 0.79	< 0.20	< 16	< 4.0	< 16	< 4.0	0.87	0.22	< 16	< 4.0
Dichloroethene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	9.1 J	2.3 J	7.9	2	< 16	< 4.0	< 16	< 4.0	4.4	1.1	< 16	< 4.0
Trichloroethane, 1,1,1-		0.55 J	0.10 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 22	< 4.0	1520	278	617	113	537	98.5	4340	796	2280	418
Trichloroethane, 1,1,2-		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 22	< 4.0	< 1.1	< 0.20	< 22	< 4.0	< 22	< 4.0	1.6	0.30	< 22	< 4.0
Tetrachloroethene		18	2.7	< 1.4	< 0.20	2.0	0.30	1.8	0.26	5320	784	8000	1180	5160	761	2550	376	7460	1100	5390	795
Trichloroethene		4.8	0.90	0.86 J	0.16 J	< 1.1	< 0.20	< 1.1	< 0.20	69.3	12.9	1530	285	1300	241	253	47.0	393	73.2	575	107
Vinyl chloride		0.51	0.20	0.74	0.29	1.8	0.72	< 0.51	< 0.20	< 10	< 4.0	0.79	0.31	< 10	< 4.0	< 10	< 4.0	1.9	0.73	< 10	< 4.0

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and the result is estimated.
- G The result is estimated due to duplicate precision outside control limits.

Table 5-5

Summary of Drilling and Monitoring Well Installation Activities, October 1, 2007 - March 31, 2008

50 Tufts Street

Somerville, Massachusetts

Sampling Event and Date	Locations	Laboratory Analytical Sampling (Y/N?)	Laboratory Analytical Detail
Vacuum Excavation 10/5/2007	MW121S, MW121D	Yes	Submitted soil sample for VOCs and % solids testing.
Vacuum Excavation 10/8/2007	MW121S, MW121D	Yes	Submitted soil samples for VOCs and % solids testing
Monitoring Well Installation 10/9/07 - 10/12/07	MW121D	Yes	Submitted soil samples for VOCs, % solids, grain size, and TOC testing. Submitted rock sample for bulk density, matrix porosity, and TOC testing.
Monitoring Well Installation 10/10/2007	MW121S	No	NA
Monitoring Well Development 10/15/2007	MW121S, MW121D	No	NA
Vacuum Excavation 1/23/2008	MW122	Yes	Submitted soil samples for VOCs, % solids, and TOC testing.
Monitoring Well Installation 1/24/2008	MW122	Yes	Submitted soil samples for VOCs, % solids, and TOC testing.
Monitoring Well Development 1/24/2008	MW122	No	NA

General Notes:

1. NA = not applicable.
2. VOC = volatile organic compound.
3. TOC = total organic carbon.

Table 5-6
Summary of Soil Vapor Sampling at Monitoring Wells, October 1, 2007 - March 31, 2008
 50 Tufts Street
 Somerville, Massachusetts

Sampling Event	Date	Sampled Locations
Quarterly Soil Vapor Sampling	10/9/2007	MW106, MW107, MW108, MW109, MW111, MW112A, MW114, MW116, MW117S, and MW118S ^(a)
	10/16/2007	MW115, MW119S, and MW120S
	10/19/2007	MW201 and MW202
	10/22/2007	MW121S
Quarterly Soil Vapor Sampling	1/7/2008	MW106, MW107, MW108, MW109, MW111, MW112A, MW114 and MW115R ^(a)
	1/8/2008	MW113, MW117S, MW118S, MW121, MW201, and MW202 ^(b)
	1/30/2008	MW116 and MW122

General Notes:

1. Each sample collected using a 6 liter summa canister with a 1-hour regulator.
2. Samples submitted for volatile organic compound testing.

Footnotes:

- (a) A soil vapor sample was not collected from MW110 because roadbox was filled with water.
 (b) A soil vapor sample was not collected from MW119S or MW120S because the water level was above the screen in both wells.

Table 5-7

Summary of Quarterly Groundwater Sampling Activities, October 1, 2007 - March 31, 2008
 50 Tufts Street
 Somerville, Massachusetts

Date	Sampled Locations	QA/QC Samples
Quarterly Groundwater Sampling 10/10/2007	MW102, MW105, MW106, MW107, MW108, MW111, MW112A, MW113, MW114, MW115	Sample from MW102 was used for MS/MSD Field duplicate MW900 (MW113)
10/11/2007	MW117T, MW117D, MW118S, MW118T, MW118D	NA
10/12/2007	MW116, MW119S, MW119T, MW120S, MW120D, MW201, MW202	Field duplicate MW901 (MW116)
10/15/2007	MW104, MW117S	NA
10/22/2007	MW121S, MW121D	NA
1/9/2008	MW105, MW115	NA
1/10/2008	MW102, MW106, MW107, MW108, MW111, MW112A	Sample from MW102 was used for MS/MSD
1/11/2008	MW104, MW113, MW114, MW116, MW117S, MW118S, MW201, MW202	Field duplicate MW900 (MW113) Field duplicate MW901 (MW116)
1/15/2008	MW117T, MW117D, MW118T, MW119S, MW120S, MW121S, MW121D	NA
1/16/2008	MW118D, MW119T	NA
1/17/2008	MW120D	NA
1/30/2008	MW122	NA

General Notes:

1. NA = not applicable.
2. QA/QC = quality assurance / quality control.
3. MS/MSD = matrix spike / matrix spike duplicate.
4. Groundwater samples were submitted for volatile organic compound testing.

Table 5-8

Summary of Soil Physical Characteristics
50 Tufts Street
Somerville, Massachusetts

Sample Location	Sample ID	Sample Depth (feet)	Stratigraphy	Dry Bulk Density (g/cc)	Median Grain-Size (mm)	Mean Grain-Size Description	Particle Size Distribution (weight %)				
							Gravel	Sand			Silt and Clay
								Coarse	Medium	Fine	
MW117D	B117D-Fill	3-16	Fill	1.84	0.395	Medium Sand	11.14	5.62	31.3	35.95	15.99
	B117D-Silt	20-24	Native Silt	1.52	0.005	Silt	0.00	0.00	0.00	1.73	98.27
	B117D-Till	28-32	Glacial Till	2.25	0.015	Silt	0.00	0.00	0.00	24.78	75.22
MW118D	B118D-Fill	0-2	Fill	1.59	0.488	Medium Sand	20.06	13.14	46.01	14.69	6.09
	B118D-lower Silt	14-16	Native Silt	1.43	0.006	Silt	0.00	0.00	0.00	0.77	99.23
	B118D-upper Silt	34-36	Native Silt	1.63	0.004	Silt	0.00	0.00	0.00	0.09	99.91
	B118D-Till	44-46	Glacial Till	2.18	5.796	Gravel	52.98	8.64	29.45	6.09	2.85
MW121D	MW121-Upper Silt	9-11	Native Silt	1.47	0.004	Silt	0.00	0.00	0.00	0.00	100.00
	MW121-Lower Silt	21-23	Native Silt	1.55	0.005	Silt	0.00	0.00	0.00	0.00	100.00
MW122	B122-Upper Silt	8-10	Native Silt	1.60	0.005	Silt	0.00	0.00	0.00	0.00	100.00
	B122- Lower Silt	0-3	Native Silt	1.82	0.004	Silt	0.00	0.00	0.00	0.00	100.00
	B122-Fill	14-16	Fill	1.41	0.322	Fine Sand	0.00	3.65	36.05	56.08	4.22

General Notes:

- Analyses were performed by PTS Laboratories of Santa Fe Springs, California.
- g/cc = grams per cubic centimeter.
- mm = millimeters.
- weight % = percent by weight.

Table 5-9

Summary of Rock Core Physical Characteristics

50 Tufts Street

Somerville, Massachusetts

Sample Location	Sample ID	Sample Depth (feet)	Bulk Density (g/cc)	Grain Density (g/cc)	Total Porosity (% Vb)	Total Organic Carbon (mg/kg)
MW118D	B118D-C1	55-60	2.61	2.64	1.2	780
	B118D-C6	75-80	2.74	2.79	1.7	3550
MW117D	B117D-C1	50-55	2.59	2.76	6.1	430
MW121D	MW121D-C1	32-36	2.64	2.75	4.2	2000

General Notes:

1. Analyses were performed by PTS Laboratories of Santa Fe Springs, California.
2. g/cc = grams per cubic centimeter.
3. % Vb = percent by bulk volume.
4. mg/kg = milligrams per kilogram.
5. Bedrock is the Cambridge Argillite.

Table 5-10

Summary of Meteorological Data - Soil Vapor Sampling, October 1, 2007 - March 31, 2008

50 Tufts Street

Somerville, Massachusetts

Sample Location	Sample Date	Associated Sample ID	Temperature (°F)		Barometric Pressure (in. Hg)		Prevailing Wind Direction		General Weather Conditions	
			Start	End	Start	End	Start	End	Start	End
MW106	10/9/2007	045162-SG-MW106	60	61	29.97	29.97	N	NE	Sunny	Partly Cloudy
MW106	1/7/2008	045162-SG-MW106	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW107	10/9/2007	045162-SG-MW107	60	61	29.97	29.97	N	NE	Sunny	Partly Cloudy
MW107	1/7/2008	045162-SG-MW107	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW108	10/9/2007	045162-SG-MW108	60	61	29.97	29.97	N	NE	Sunny	Partly Cloudy
MW108	1/7/2008	045162-SG-MW108	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW109	10/9/2007	045212-SG-MW109	60	61	29.97	29.97	N	NE	Sunny	Partly Cloudy
MW109	1/7/2008	045162-SG-MW109	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW111	10/9/2007	045162-SG-MW111	60	61	29.97	29.97	N	NE	Sunny	Partly Cloudy
MW111	1/7/2008	045162-SG-MW111	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW112A	10/9/2007	045162-SG-MW112A	60	61	29.97	29.97	N	NE	Sunny	Partly Cloudy
MW112A	1/7/2008	045162-SG-MW112A	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW114	10/9/2007	045162-SG-MW114	61	65	29.97	29.97	N	NE	Sunny	Sunny
MW114	1/7/2008	045162-SG-MW114	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW115R	10/16/2007	045162-SG-MW115R	61.3	64.1	30.14	30.13	N	N	Sunny	Sunny
MW115R	1/7/2008	045162-SG-MW115R	62	56	30.13	30.05	Calm	Calm	Cloudy	Partly Cloudy
MW116	10/9/2007	045162-SG-MW116	60	61	29.97	29.97	N	NE	Sunny	Sunny
MW116	1/30/2008	045162-SG-MW116	48.7	48.2	29.41	29.34	N	N	Overcast, Windy	Light Rain, Windy
MW117S	10/9/2007	045162-SG-MW117S	61	65	29.97	29.97	N	NE	Sunny	Sunny
MW117S	1/8/2008	045162-SG-MW117S	65	58	29.96	30.13	SW	SW	Sunny	Clear
MW118S	10/9/2007	045162-SG-MW118S	61	65	29.97	29.97	NE	NE	Partly Cloudy	Sunny
MW118S	1/8/2008	045162-SG-MW118S	65	58	29.96	30.13	Calm	Calm	Sunny	Clear
MW119S	10/16/2007	045162-SG-MW119S	61.3	64.1	30.14	30.13	N	N	Sunny	Sunny
MW120S	10/16/2007	045162-SG-MW120S	61.3	64.1	30.14	30.13	N	E	Sunny	Sunny
MW121S	1/8/2008	045162-SG-MW121S	65	58	29.96	30.13	Calm	Calm	Sunny	Clear
MW122	1/30/2008	045162-SG-MW122	48.7	48.2	29.41	29.34	N	N	Overcast, Windy	Light Rain, Windy
MW201	10/19/2007	045162-SG-MW201	68.5	70.5	29.91	29.92	Calm	Calm	Cloudy	Cloudy
MW202	10/19/2007	045162-SG-MW202	68.5	70.5	29.91	29.92	Calm	Calm	Cloudy	Cloudy

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a Sensor Instrument Nimbus Trademark digital barometer.

Table 5-11
Monthly Groundwater Elevations
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	5/15/2006		5/16/2006		5/23/2006		5/31/2006		7/24/2006		8/1/2006		8/3/2006		8/16/2006		9/29/2006		10/4/2006	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.9	9.69	16.21	9.53	16.37	10.9	15	11.39	14.51	--	--	--	--	--	--	11.9	14	--	--	11.88	14.02
MW-2	unknown	25.38	8.99	16.39	10.36	15.02	Dry	Dry	Dry	Dry	--	--	--	--	--	--	Dry	Dry	--	--	--	--
MW-3	unknown	25.31	8.88	16.43	9.32	15.99	11.16	14.15	12.71	12.6	--	--	--	--	--	--	13.73	11.58	--	--	13.75	11.56
MW-101	9-19	26.75	--	--	10.56	16.19	11.53	15.22	12.1	14.65	12.33	14.42	12.51	14.24	13.47	13.28	12.78	13.97	12.85	13.9	12.76	13.99
MW-102	6-16	18.89	--	--	6.62	12.27	6.86	12.03	7.44	11.45	7.93	10.96	8.16	10.73	9.11	9.78	8.51	10.38	8.68	10.21	8.52	10.37
MW-103	6-16	19.47	--	--	9.5	9.97	10.37	9.1	10.74	8.73	11.15	8.32	11.31	8.16	12.24	7.23	11.72	7.75	11.98	7.49	11.92	7.55
MW-104	5-15	17.67	--	--	--	--	7.93	9.74	8.89	8.78	9.06	8.61	9.39	8.28	10.29	7.38	9.87	7.8	9.95	7.72	9.92	7.75
MW-105	19-29	38.84	--	--	19.49	19.35	20.21	18.63	20.7	18.14	21.18	17.66	21.43	17.41	22.41	16.43	21.91	16.93	22.27	16.57	22.18	16.66
MW-106	9 - 19	26.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107	2 - 12	14.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108	2 - 12	12.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-109	3 - 13	24.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110	3 - 13	15.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111	4 - 14	18.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112	3 - 10	18.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112a	4-19	17.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-113	10-20	26.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114	7-17	29.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-115	10-25	27.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-116	5-15	13.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S	5 - 20	21.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117T	35 - 45	21.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117D	60 - 70	21.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S	3 - 14	15.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118T	39.5 - 49.5	15.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118D	70 - 80	15.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-119S	5 - 20	11.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-119T	42 - 47	11.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-120S	5 - 20	12.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-120D	28 - 38	12.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121S	5 - 20	12.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121D	32 - 47	12.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-122	4 - 16	16.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEO-1	5 - 20	25.88	9.69	16.19	9.9	15.98	10.92	14.96	11.36	14.52	--	--	--	--	--	--	11.82	14.06	--	--	11.85	14.03
GEO-2	5 - 20	26.54	9.76	16.78	--	--	11.38	15.16	11.91	14.63	--	--	--	--	--	--	12.51	14.03	--	--	12.51	14.03
GEO-3	5 - 20	25.64	10.43	15.21	9.59	16.05	9.87	15.77	10.67	14.97	11.67	13.97	11.85	13.79	12.84	12.8	12.25	13.39	12.37	2.84	12.35	13.29
GEO-4	4 - 19	21.69	--	--	7.79	13.9	9.85	11.84	10.78	10.91	11.25	10.44	11.45	10.24	12.43	9.26	11.9	9.79	12.09	9.6	12.04	9.65
GEO-5	5 - 20	20.14	--	--	6.78	13.36	9.08	11.06	9.96	10.18	10.29	9.85	10.56	9.58	11.51	8.63	10.99	9.15	11.21	8.93	11.15	8.99
GEO-6	5 - 20	17.62	--	--	5.66	11.96	7.39	10.23	8.23	9.39	8.43	9.19	8.73	8.89	9.64	7.98	9.25	8.37	9.41	8.21	9.26	8.36
SH-1	9 - 14	29.55	10.15	19.4	11.4	18.15	Dry	Dry	Dry	Dry	--	--	--	--	--	--	Dry	Dry	--	--	Dry	Dry
SH-2	7 - 14	29.64	5.71	23.93	7.86	21.78	12.07	17.57	12.22	17.42	--	--	--	--	--	--	11.98	17.66	--	--	12	17.64
SH-3	8 - 13	29.66	7.54	22.12	8.56	21.1	12.73	16.93	12.96	16.7	--	--	--	--	--	--	Dry	Dry	--	--	Dry	Dry
SH-4	11 - 16	29.63	13.53	16.1	13.48	16.15	14.48	15.15	15.02	14.61	--	--	--	--	--	--	15.09	14.54	--	--	15.1	14.53
SH-5	8 - 13	29.63	Dry	Dry	--	--	12.99	16.64	13.03	16.6	--	--	--	--	--	--	Dry	Dry	--	--	Dry	Dry
SH-MW1	10 - 30	24.02	6.72	17.3	--	--	11.44	12.58	12.18	11.84	--	--	--	--	--	--	13.09	10.93	--	--	13.17	10.85
SH-MW2	10 - 25	24.27	9.33	14.94	--	--	12.05	12.22	12.69	11.58	--	--	--	--	--	--	13.38	10.89	--	--	13.41	10.86
SH-MW3	10 - 24	22.31	7.8	14.51	--	--	10.26	12.05	11.03	11.28	--	--	--	--	--	--	13	9.31	--	--	12.04	10.27
MW201	11-21	27.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW202	10.5-20.5	27.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW203	6-18	21.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
 - NAVD = North American Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, or not measured.
 - NM = Not measured.

Table 5-11
Monthly Groundwater Elevations
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	11/14/2006		12/12/2006		1/16/2007		2/12/2007		3/14/2007		4/12/2007		5/29/2007		6/26/2007		7/16/2007		8/22/2007	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.9	--	--	--	--	11.6	14.3	--	--	--	--	11.39	14.51	11.41	14.49	11.8	14.1	12.04	13.86	--	--
MW-2	unknown	25.38	--	--	--	--	Destroyed	Destroyed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	--	--	--	--	13.05	12.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-101	9-19	26.75	12.25	14.5	12.57	14.18	12.4	14.35	12.81	13.94	12.34	14.41	12.11	14.64	12.17	14.58	12.62	14.13	12.85	13.9	13.03	13.72
MW-102	6-16	18.89	7.64	11.25	8.01	10.88	7.72	11.17	8.52	10.37	--	--	7.46	11.43	6.72	12.17	8.36	10.53	8.74	10.15	9.08	9.81
MW-103	6-16	19.47	11	8.47	11.21	8.26	10.88	8.59	11.74	7.73	11	8.47	10.66	8.81	10.81	8.66	11.47	8	11.92	7.55	12.3	7.17
MW-104	5-15	17.67	--	--	--	--	8.73	8.94	--	--	--	--	8.75	8.92	--	--	9.62	8.05	10.09	7.58	10.36	7.31
MW-105	19-29	38.84	21.16	17.68	21.76	17.08	21.46	17.38	22.03	16.81	21.56	17.28	20.88	17.96	20.86	17.98	21.55	17.29	22.13	16.71	22.79	16.05
MW-106	9 - 19	26.33	--	--	--	--	--	--	12.27	14.06	12.91	13.42	11.65	14.68	11.69	14.64	12.07	14.26	12.33	14	12.48	13.85
MW-107	2 - 12	14.63	--	--	--	--	--	--	4.54	10.09	4.5	10.13	4.49	10.14	4.46	10.17	4.48	10.15	4.52	10.11	4.75	9.88
MW-108	2 - 12	12.74	--	--	--	--	--	--	4.93	7.81	4.02	8.72	9.91	2.83	4.25	8.49	5.06	7.68	6.59	6.15	6.25	6.49
MW-109	3 - 13	24.12	--	--	--	--	--	--	12.07	12.05	11.27	12.85	10.27	13.85	10.73	13.39	11.76	12.36	12.24	11.88	Dry	Dry
MW-110	3 - 13	15.58	--	--	--	--	--	--	5.99	--	1.46	14.12	1.04	14.54	2.56	13.02	6.57	9.01	7.17	8.41	7.86	7.72
MW-111	4 - 14	18.95	--	--	--	--	--	--	11.38	7.57	10.62	8.33	10.65	8.3	10.68	8.27	11.11	7.84	11.54	7.41	11.96	6.99
MW-112	3 - 10	18.16	--	--	--	--	--	--	Dry	Dry	8.01	10.15	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-112a	4-19	17.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-113	10-20	26.16	--	--	--	--	--	--	--	--	12.76	5.02	12.76	5.02	12.67	5.11	12.81	4.97	12.88	4.9	--	--
MW-114	7-17	29.43	--	--	--	--	--	--	--	--	11.66	14.5	11.44	14.72	11.51	14.65	11.99	14.17	12.22	13.94	12.43	13.73
MW-115	10-25	27.15	--	--	--	--	--	--	--	--	12.67	16.76	11.27	18.16	11.53	17.9	12.88	16.55	15.57	13.86	14.24	15.19
MW-116	5-15	13.45	--	--	--	--	--	--	--	--	17.19	9.96	16.21	10.94	16.63	10.52	17.42	9.73	17.97	9.18	18.38	8.77
MW-117S	5 - 20	21.94	--	--	--	--	--	--	--	--	8.78	4.67	8.34	5.11	8.65	4.8	8.76	4.69	--	--	8.85	4.6
MW-117T	35 - 45	21.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.27	6.67	15.7	6.24
MW-117D	60 - 70	21.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.95	5.92	16.38	5.49
MW-118S	3 - 14	15.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.87	5.91	16.26	5.52
MW-118T	39.5 - 49.5	15.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11.64	3.88	9.84	5.68
MW-118D	70 - 80	15.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.36	4.94	10.51	4.79
MW-119S	5 - 20	11.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.18	4.97	10.32	4.83
MW-119T	42 - 47	11.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.91	6.83
MW-120S	5 - 20	12.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.45	5.22
MW-120D	28 - 38	12.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.25	7.29
MW-121S	5 - 20	12.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121D	32 - 47	12.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-122	4 - 16	16.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEO-1	5 - 20	25.88	--	--	--	--	11.55	14.33	--	--	--	--	11.36	14.52	11.38	14.5	11.73	14.15	11.93	13.95	12.1	13.78
GEO-2	5 - 20	26.54	--	--	--	--	12.2	14.34	--	--	--	--	11.97	14.57	11.99	14.55	12.4	14.14	13.6	12.94	12.81	13.73
GEO-3	5 - 20	25.64	11.63	14.01	11.72	13.92	11.58	14.06	12.21	13.43	11.49	14.15	10.76	14.88	11.04	14.6	11.94	13.7	--	--	12.7	12.94
GEO-4	4 - 19	21.69	10.58	11.11	11.31	10.38	10.77	10.92	11.83	9.86	11.03	10.66	10.51	11.18	10.87	10.82	11.64	10.05	12.09	9.6	12.55	9.14
GEO-5	5 - 20	20.14	9.47	10.67	10.48	9.66	9.73	10.41	11.02	9.12	10.15	9.99	9.7	10.44	10.01	10.13	10.79	9.35	11.25	8.89	11.74	8.4
GEO-6	5 - 20	17.62	7.65	9.97	8.82	8.8	8.11	9.51	9.3	8.32	8.54	9.08	8.32	9.3	8.25	9.37	8.9	8.72	9.5	8.12	9.92	7.7
SH-1	9 - 14	29.55	--	--	--	--	Dry	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	Dry	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	Dry	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	Dry	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	Dry	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	12.21	11.81	--	--	--	--	12.01	12.01	12.26	11.76	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	--	--	--	--	12.73	11.54	--	--	--	--	12.61	11.66	12.74	11.53	13.25	11.02	13.48	10.79	13.72	10.55
SH-MW3	10 - 24	22.31	--	--	--	--	11.04	11.27	--	--	--	--	10.81	11.5	--	--	11.72	10.59	12.08	10.23	12.43	9.88
MW201	11-21	27.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.71	13.8
MW202	10.5-20.5	27.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.99	13.83
MW203	6-18	21.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14.05	7.75

- General Notes:
1. ft = feet.
 2. bgs = below ground surface.
 3. NAVD = North American Datum of 1988.
 4. The top of the PVC riser was used as the measuring point for depth to groundwater.
 5. "--" = Well not yet installed, or not measured.
 6. NM = Not measured.

Table 5-11
Monthly Groundwater Elevations
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	9/27/2007		10/23/2007		11/30/2007		1/9/2008		2/26/2008		3/18/2008	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.9	12.26	--	12.07	--	11.95	13.95	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	14.34	10.97	13.94	11.37	13.75	11.56	12.86	12.45	12.05	13.26	12.37	12.94
MW-101	9-19	26.75	13.17	13.58	12.91	13.84	13.82	12.93	12.11	14.64	--	--	11.85	14.9
MW-102	6-16	18.89	9.35	9.54	8.97	9.92	8.01	10.88	7.46	11.43	7.29	11.6	7.17	11.72
MW-103	6-16	19.47	12.63	6.84	--	--	12.18	7.29	10.74	8.73	10.51	8.96	10.5	8.97
MW-104	5-15	17.67	10.61	7.06	10.31	7.36	10.07	7.6	8.86	8.81	8.61	9.06	8.48	9.19
MW-105	19-29	38.84	23.18	15.66	22.96	15.88	22.74	16.1	21.39	17.45	20.79	18.05	20.41	18.43
MW-106	9 - 19	26.33	12.61	13.72	12.39	13.94	12.27	14.06	11.71	14.62	11.51	14.82	11.38	14.95
MW-107	2 - 12	14.63	4.51	10.12	4.47	10.16	4.44	10.19	4.35	10.28	--	--	4.46	--
MW-108	2 - 12	12.74	6.28	6.46	5.86	6.88	4.74	8	3.71	9.03	4.61	8.13	3.68	9.06
MW-109	3 - 13	24.12	Dry	Dry	Dry	Dry	12.78	11.34	10.64	13.48	10.06	14.06	10.02	14.1
MW-110	3 - 13	15.58	8.37	7.21	6.92	8.66	3.34	12.24	--	--	0.79	14.79	1.12	--
MW-111	4 - 14	18.95	12.34	6.61	11.99	6.96	12.27	6.68	10.51	8.44	10.5	8.45	10.54	8.41
MW-112	3 - 10	18.16	Dry	Dry	Dry	Dry	Dry	Dry	--	--	--	--	--	--
MW-112a	4-19	17.78	12.95	4.83	12.8	4.98	--	--	12.43	5.35	12.52	5.26	12.61	5.17
MW-113	10-20	26.16	12.58	13.58	12.3	13.86	12.6	13.56	11.5	14.66	11.28	14.88	11.15	15.01
MW-114	7-17	29.43	14.84	14.59	14.66	14.77	14.31	15.12	12.08	17.35	11.11	18.32	10.75	18.68
MW-115	10-25	27.15	18.81	8.34	18.37	8.78	18.24	8.91	16.18	10.97	15.85	11.3	15.86	11.29
MW-116	5-15	13.45	8.91	4.54	8.83	4.62	--	--	8.6	4.85	8.68	4.77	8.77	4.68
MW-117S	5 - 20	21.94	16.03	5.91	16.2	5.74	15.95	5.99	13.97	7.97	13.52	8.42	13.5	8.44
MW-117T	35 - 45	21.87	16.81	5.06	16.91	4.96	16.58	5.29	14.58	7.29	13.97	7.9	13.9	7.97
MW-117D	60 - 70	21.78	16.69	5.09	16.77	5.01	16.44	5.34	14.46	7.32	13.86	7.92	13.81	7.97
MW-118S	3 - 14	15.52	10.2	5.32	9.42	6.1	9.4	6.12	8.55	6.97	8.34	7.18	8.4	7.12
MW-118T	39.5 - 49.5	15.3	10.74	4.56	10.68	4.62	10.5	4.8	9.93	5.37	9.49	5.81	9.53	5.77
MW-118D	70 - 80	15.15	10.55	4.6	10.49	4.66	10.25	4.9	9.55	5.6	9.3	5.85	9.35	5.8
MW-119S	5 - 20	11.74	4.99	6.75	4.93	6.81	4.85	6.89	4.63	7.11	4.6	7.14	4.56	7.18
MW-119T	42 - 47	11.67	6.8	4.87	6.72	4.95	6.57	5.1	5.82	5.85	5.63	6.04	5.78	5.89
MW-120S	5 - 20	12.54	5.35	7.19	4.71	7.83	4.62	7.92	3.51	9.03	4.06	8.48	4	8.54
MW-120D	28 - 38	12.45	4.21	8.24	3.94	8.51	3.48	8.97	3.17	9.28	2.96	9.49	3.11	9.34
MW-121S	5 - 20	12.44	--	--	7.36	5.08	7.41	5.03	7.24	5.2	7.36	5.08	7.41	5.03
MW-121D	32 - 47	12.81	--	--	7.92	4.89	7.75	5.06	6.95	5.86	6.83	5.98	6.91	5.9
MW-122	4 - 16	16.42	--	--	--	--	--	--	--	--	12.98	3.44	13	3.42
GEO-1	5 - 20	25.88	12.21	13.67	11.98	13.9	11.91	13.97	11.41	14.47	11.22	14.66	--	--
GEO-2	5 - 20	26.54	12.91	13.63	12.63	13.91	12.57	13.97	12.02	14.52	11.77	14.77	--	--
GEO-3	5 - 20	25.64	12.94	12.7	12.61	13.03	12.54	13.1	10.99	14.65	10.71	14.93	--	--
GEO-4	4 - 19	21.69	13.02	8.67	12.64	9.05	12.47	9.22	11.72	9.97	10.36	11.33	10.34	11.35
GEO-5	5 - 20	20.14	11.18	8.96	11.72	8.42	12.62	7.52	9.92	10.22	9.42	10.72	9.52	10.62
GEO-6	5 - 20	17.62	10.22	7.4	9.96	7.66	9.96	7.66	8.21	9.41	7.78	9.84	7.86	9.76
SH-1	9 - 14	29.55	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	14.04	10.23	13.68	10.59	13.85	10.42	12.77	11.5	12.49	11.78	12.46	11.81
SH-MW3	10 - 24	22.31	12.79	9.52	12.41	9.9	12.05	10.26	11.55	10.76	10.68	11.63	10.65	11.66
MW201	11-21	27.51	13.83	13.68	13.58	13.93	13.5	14.01	12.98	14.53	12.76	14.75	12.64	14.87
MW202	10.5-20.5	27.82	14.08	13.74	13.88	13.94	13.81	14.01	13.41	14.41	13.22	14.6	13.12	14.7
MW203	6-18	21.8	14.39	7.41	13.86	7.94	13.61	8.19	12.86	8.94	12.03	9.77	12	9.8

General Notes:

1. ft = feet.
2. bgs = below ground surface.
3. NAVD = North American Datum of 1988.
4. The top of the PVC riser was used as the measuring point for depth to groundwater.
5. "--" = Well not yet installed, or not measured.
6. NM = Not measured.

Table 7-1

Summary of SSDS Monitoring Events - Capuano Center

November 1, 2007 to March 31, 2008

50 Tufts Street

Somerville, Massachusetts

Monitoring Date	Monitoring Event per RMR Report Period	Type of Monitoring Event	SSDS Field Parameters Measured	Analytical Samples Collected (yes/no)?
11/2/2007	5	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe, the combined influent, and effluent pipes. -System flow rate.	No
11/9/2007	6	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe, the combined influent, and effluent pipes. -System flow rate.	No
11/14/2007	7	SSDS Monthly Monitoring	-Ambient Air sampling on roof. -Pressure and VOC concentrations at exterior extraction pipes. -Pressure and VOC concentrations at manifold pipes, combined influent, and effluent pipes. -System flow rate.	Yes
11/15/2007	8	SSDS Monthly Monitoring	-Pre-sampling HVAC inspection. -Pressure and VOC concentrations at interior sub-slab monitoring points.	Yes
11/23/2007	9	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe, the combined influent, and effluent pipes. -System flow rate.	No
11/30/2007	10	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe, the combined influent, and effluent pipes. -System flow rate.	No
12/7/2007	11	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe, the combined influent, and effluent pipes. -System flow rate.	No
12/13/2007	12	SSDS Monthly Monitoring	-Pre-sampling HVAC inspection. -Pressure and VOC concentrations at interior sub-slab monitoring points.	Yes
12/14/2007	13	SSDS Monthly Monitoring	-Pressure and VOC concentrations at exterior extraction pipes. -Pressure and VOC concentrations at manifold pipes, combined influent, and effluent pipes. -System flow rate.	No
12/17/2007	14	SSDS Monthly Monitoring	-Ambient Air sampling on roof.	Yes
12/21/2007	15	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe and effluent pipes. -System flow rate.	No
12/28/2007	16	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe and effluent pipes. -System flow rate.	No

General Notes:

1. RMR = Remedial Monitoring Report.
2. SSDS = Sub-Slab Depressurization System.
3. VOC = Volatile Organic Compound.
4. HVAC = Heating, Ventilation, and Air Conditioning system.
5. VOC measurements collected with a ppb-RAE calibrated to 10 parts per million (ppm) isobutylene.
6. Pressure readings collected using a Dwyer 475-000-FM manamoter.

Table 7-1

Summary of SSDS Monitoring Events - Capuano Center

November 1, 2007 to March 31, 2008

50 Tufts Street

Somerville, Massachusetts

Monitoring Date	Monitoring Event per RMR Report Period	Type of Monitoring Event	SSDS Field Parameters Measured	Analytical Samples Collected (yes/no)?
1/4/2008	17	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe and effluent pipes. -System flow rate.	No
1/18/2008	18	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe and effluent pipes. -System flow rate.	No
1/20/2008	19	SSDS Monthly Monitoring	-Pressure and VOC concentrations at exterior extraction pipes. -Pressure and VOC concentrations at manifold pipes, combined influent, and effluent pipes. -System flow rate.	No
1/21/2008	20	SSDS Monthly Monitoring	-Pre-sampling HVAC inspection. -Pressure and VOC concentrations at interior sub-slab monitoring points.	Yes
2/1/2008	21	SSDS Weekly Mechanical Inspection	-Pressure and VOC concentrations at each manifold pipe and effluent pipes. -System flow rate.	No
2/15/2008	22	SSDS Weekly Mechanical	-Pressure and VOC concentrations at each manifold pipe and effluent pipes.	No
2/18/2008	23	SSDS Monthly Monitoring	-Pressure and VOC concentrations at exterior extraction pipes. -Pressure and VOC concentrations at manifold pipes, combined influent, and effluent pipes.	No
2/19/2008	24	SSDS Monthly Monitoring	-Pre-sampling HVAC inspection. -Pressure and VOC concentrations at interior sub-slab monitoring points.	Yes
2/26/2008	25	SSDS Weekly Mechanical	-Pressure and VOC concentrations at each manifold pipe and effluent pipes.	No
3/7/2008	26	SSDS Weekly Mechanical	-Pressure and VOC concentrations at each manifold pipe and effluent pipes.	No
3/14/2008	27	SSDS Monthly Monitoring	-Pressure and VOC concentrations at exterior extraction pipes. -Pressure and VOC concentrations at manifold pipes, combined influent, and effluent pipes.	No
3/17/2008	28	SSDS Monthly Monitoring	-Pre-sampling HVAC inspection. -Pressure and VOC concentrations at interior sub-slab monitoring points.	Yes

General Notes:

1. RMR = Remedial Monitoring Report.
2. SSDS = Sub-Slab Depressurization System.
3. VOC = Volatile Organic Compound.
4. HVAC = Heating, Ventilation, and Air Conditioning system.
5. VOC measurements collected with a ppb-RAE calibrated to 10 parts per million (ppm) isobutylene.
6. Pressure readings collected using a Dwyer 475-000-FM manamoter.

Table 7-2
PID Monitoring Data - Capuano Center
50 Tufts Street
Somerville, Massachusetts

Date	PID Reading (ppb as isobutylene)										
	Interior Sub-Slab Monitoring Points					Blower Enclosure Monitoring Points					
	Room 122A	Room 126A	Room 133A	Room 137A	Room 142A	Room 146A	Manifold 12	Manifold 13	Manifold 14	Combined Influent	Effluent
1/31/2007	440	641	469	800	412	3,400	NM	NM	NM	NM	NM
2/1/2007	492,000	305,000	975,000	1,244,000	210	331,000	NM	NM	NM	NM	NM
2/2/2007	1,700	6,200	4,000	2,400	11,100	47,000	0	0	1,100	2,000	1,400
2/3/2007	1,328	5,468	2,081	1,328	1,743	2,213	183	652	317	1,090	785
2/4/2007	746	4,750	297	652	1,255	2,565	241	436	328	528	456
2/5/2007	272	1,951	1,164	1,595	1,955	1,538	213	474	412	483	472
2/6/2007	613	3,563	1,299	1,967	2,412	12,100	285	4,479	787	633	669
2/7/2007	NM	NM	NM	NM	NM	NM	1,715	993	1,385	738	979
2/8/2007	974	3,392	933	1,399	786	4,395	118	147	153	192	180
2/20/2007	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
3/1/2007	NM	NM	NM	NM	NM	NM	800	1,000	1,000	800	1,000
3/8/2007	417	580	441	270	151	1,176	958	425	602	534	428
3/14/2007	NM	NM	NM	NM	NM	NM	22	273	111	163	86
3/22/2007	NM	NM	NM	NM	NM	NM	144	0	0	0	1,058
3/29/2007	NM	NM	NM	NM	NM	NM	85	0	0	0	600
4/6/2007	NM	NM	NM	NM	NM	NM	21	115	70	43	41
4/20/2007	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
4/27/2007	195	14,000	4,145	6,150	1,250	3,725	37	169	152	151	128
5/4/2007	NM	NM	NM	NM	NM	NM	330	220	280	170	200
5/11/2007	NM	NM	NM	NM	NM	NM	389	57	356	245	60
5/18/2007	NM	NM	NM	NM	NM	NM	40	90	83	75	50
5/25/2007	200	10,300	430	520	420	415	1,150	500	560	700	681
6/1/2007	NM	NM	NM	NM	NM	NM	6,150	8,000	7,565	5,413	6,122
6/8/2007	NM	NM	NM	NM	NM	NM	95	103	125	35	47
6/15/2007	NM	NM	NM	NM	NM	NM	153	203	236	175	190
6/22/2007	NM	NM	NM	NM	NM	NM	31	106	154	93	83
7/6/2007	NM	NM	NM	NM	NM	NM	1,982	468	0	0	0
7/13/2007	NM	NM	NM	NM	NM	NM	28	23	36	15	0
7/30/2007	800	50	90	53	0	36	191	247	267	137	171
8/6/2007	NM	NM	NM	NM	NM	NM	91	277	136	192	145
8/10/2007	NM	NM	NM	NM	NM	NM	0	16	26	1	0

General Notes:

1. ppb = parts per billion.
2. PID = photoionization detector.
3. Measurements were collected with a PID.
4. NM = Not Measured.
5. VOC concentrations measured with a ppbRAE (Model: ppbRAE) calibrated to 100 ppm isobutylene with a response factor of 1.0.

Table 7-2
PID Monitoring Data - Capuano Center
50 Tufts Street
Somerville, Massachusetts

Date	PID Reading (ppb as isobutylene)										
	Interior Sub-Slab Monitoring Points						Blower Enclosure Monitoring Points				
	Room 122A	Room 126A	Room 133A	Room 137A	Room 142A	Room 146A	Manifold 12	Manifold 13	Manifold 14	Combined Influent	Effluent
8/20/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	27
8/24/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	110
9/7/2007	NM	NM	NM	NM	NM	NM	261	300	340	300	260
9/10/2007	27	175	8	842	0	17	98	207	319	261	310
9/25/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
9/30/2007	NM	NM	NM	NM	NM	NM	120	150	240	190	185
10/5/2007	NM	NM	NM	NM	NM	NM	700	540	530	420	400
10/8/2007	45	71	40	22	16	20	177	140	175	136	123
10/14/2007	NM	231	321	1245	268	80	NM	NM	NM	NM	NM
10/26/2007	NM	NM	NM	NM	NM	NM	14	100	150	80	87
11/2/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
11/9/2007	NM	NM	NM	NM	NM	NM	0	21	119	62	41
11/14/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
11/15/2007	0	0	0	0	0	0	NM	NM	NM	NM	NM
11/23/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
11/30/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
12/7/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
12/13/2007	0	100	38	38	0	620	0	0	0	0	0
12/14/2007	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/21/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	0
12/28/2007	NM	NM	NM	NM	NM	NM	0	0	0	0	106
1/4/2008	NM	NM	NM	NM	NM	NM	0	0	0	58	108
1/18/2008	NM	NM	NM	NM	NM	NM	0	0	0	0	0
1/21/2008	99	268	17	0	0	433	0	0	0	0	0
2/1/2008	NM	NM	NM	NM	NM	NM	0	0	0	0	0
2/15/2008	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
2/18/2008	31	450	176	60	117	66	0	0	0	0	0
2/26/2008	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
3/7/2008	NM	NM	NM	NM	NM	NM	0	0	0	0	0
3/14/2008	51	330	70	8	25	31	42	7	3	0	18

General Notes:

1. ppb = parts per billion.
2. PID = photoionization detector.
3. Measurements were collected with a PID.
4. NM = Not Measured.
5. VOC concentrations measured with a ppbRAE (Model: ppbRAE) calibrated to 100 ppm isobutylene with a response factor of 1.0.

Table 7-3
Influent VOC Mass Conversion Factors - 50 Tufts Street
50 Tufts Street
Somerville, Massachusetts

Units: Conversion Factor:		Combined System Influent VOCs					Influent Flow Rate	Estimated Mass Removed				
Date	Day	ppm	µg/m ³ ppm x 3863.2	kg/m ³ µg/m ³ / 1x10 ⁹	lbs/m ³ kg/m ³ x 2.2	lbs/ft ³ lbs/m ³ / 35.3	cfm	lbs/min lbs/cf x cfm	lbs/day cfm x 1440	# of days	total lbs	cumulative lbs
4/30/2007	1	70	270,422	2.70E-04	5.95E-04	1.69E-05	331	0.006	8.03	1	8.0	8
5/1/2007	2	251	969,656	9.70E-04	2.13E-03	6.04E-05	331	0.020	28.80	1	28.8	37
5/3/2007	4	229	884,667	8.85E-04	1.95E-03	5.51E-05	331	0.018	26.28	2	52.6	89
5/4/2007	5	192	741,729	7.42E-04	1.63E-03	4.62E-05	331	0.015	22.03	1	22.0	111
5/5/2007	6	169	652,876	6.53E-04	1.44E-03	4.07E-05	331	0.013	19.39	1	19.4	131
5/7/2007	8	201	776,498	7.76E-04	1.71E-03	4.84E-05	340	0.016	23.69	2	47.4	178
5/10/2007	11	205	791,950	7.92E-04	1.74E-03	4.94E-05	340	0.017	24.17	3	72.5	251
5/18/2007	19	153	591,065	5.91E-04	1.30E-03	3.68E-05	349	0.013	18.51	8	148.1	399
5/25/2007	26	126.7	489,464	4.89E-04	1.08E-03	3.05E-05	340	0.010	14.94	7	104.5	503
6/1/2007	33	170.4	658,285	6.58E-04	1.45E-03	4.10E-05	318	0.013	18.79	7	131.5	635
6/3/2007	35	139	536,981	5.37E-04	1.18E-03	3.35E-05	314	0.011	15.13	2	30.3	665
6/8/2007	40	98.6	380,909	3.81E-04	8.38E-04	2.37E-05	310	0.007	10.60	5	53.0	718
6/12/2007	44	92.3	356,571	3.57E-04	7.84E-04	2.22E-05	314	0.007	10.05	4	40.2	758
6/19/2007	51	100.5	388,249	3.88E-04	8.54E-04	2.42E-05	323	0.008	11.25	7	78.8	837
6/26/2007	58	27.6	106,624	1.07E-04	2.35E-04	6.65E-06	327	0.002	3.13	7	21.9	859
7/3/2007	65	138	533,118	5.33E-04	1.17E-03	3.32E-05	314	0.010	15.02	7	105.2	964
7/10/2007	72	31.2	120,531	1.21E-04	2.65E-04	7.51E-06	318	0.002	3.44	7	24.1	988
7/17/2007	79	82.2	317,553	3.18E-04	6.99E-04	1.98E-05	297	0.006	8.46	7	59.2	1047
7/24/2007	86	127.5	492,555	4.93E-04	1.08E-03	3.07E-05	340	0.010	15.03	7	105.2	1153
7/31/2007	93	89.7	346,527	3.47E-04	7.62E-04	2.16E-05	331	0.007	10.29	7	72.1	1225
8/7/2007	100	100.7	389,022	3.89E-04	8.56E-04	2.42E-05	349	0.008	12.18	7	85.3	1310
8/19/2007	112	114	440,402	4.40E-04	9.69E-04	2.74E-05	367	0.010	14.49	12	173.8	1484
8/20/2007	113	119	459,718	4.60E-04	1.01E-03	2.87E-05	384	0.011	15.84	1	15.8	1500
8/21/2007	114	104	401,770	4.02E-04	8.84E-04	2.50E-05	378	0.009	13.61	1	13.6	1513
8/22/2007	115	234	903,982	9.04E-04	1.99E-03	5.63E-05	378	0.021	30.67	1	30.7	1544
8/23/2007	116	208	803,540	8.04E-04	1.77E-03	5.01E-05	378	0.019	27.26	1	27.3	1571
8/28/2007	121	158	610,381	6.10E-04	1.34E-03	3.80E-05	371	0.014	20.32	5	101.6	1673
9/4/2007	128	209	807,403	8.07E-04	1.78E-03	5.03E-05	369	0.019	26.74	7	187.2	1860
9/11/2007	135	175.9	679,532	6.80E-04	1.49E-03	4.24E-05	368	0.016	22.44	7	157.1	2017
9/18/2007	142	178	687,645	6.88E-04	1.51E-03	4.29E-05	340	0.015	20.98	7	146.9	2164
9/25/2007	149	136	525,391	5.25E-04	1.16E-03	3.27E-05	380	0.012	17.92	7	125.4	2289
10/2/2007	156	121	467,444	4.67E-04	1.03E-03	2.91E-05	386	0.011	16.19	7	113.4	2403
10/16/2007	170	120	463,581	4.64E-04	1.02E-03	2.89E-05	354	0.010	14.73	14	206.2	2609
10/23/2007	177	94	363,138	3.63E-04	7.99E-04	2.26E-05	362	0.008	11.80	7	82.6	2692
10/30/2007	184	95.5	368,933	3.69E-04	8.12E-04	2.30E-05	372	0.009	12.32	7	86.2	2778
11/9/2007	194	107.7	416,064	4.16E-04	9.15E-04	2.59E-05	349	0.009	13.03	10	130.3	2908
11/13/2007	198	101.4	391,726	3.92E-04	8.62E-04	2.44E-05	349	0.009	12.27	4	49.1	2957
11/19/2007	204	91.7	354,253	3.54E-04	7.79E-04	2.21E-05	350	0.008	11.13	6	66.8	3024
11/26/2007	211	73.8	285,102	2.85E-04	6.27E-04	1.78E-05	351	0.006	8.98	7	62.9	3087
12/3/2007	218	97.3	375,887	3.76E-04	8.27E-04	2.34E-05	352	0.008	11.87	7	83.1	3170
12/7/2007	222	98.5	380,523	3.81E-04	8.37E-04	2.37E-05	349	0.008	11.92	4	47.7	3218
12/12/2007	227	77.9	300,941	3.01E-04	6.62E-04	1.88E-05	350	0.007	9.45	5	47.3	3265
12/27/2007	242	64.8	250,334	2.50E-04	5.51E-04	1.56E-05	362	0.006	8.13	15	122.0	3387
1/10/2008	256	55.5	214,406	2.14E-04	4.72E-04	1.34E-05	362	0.005	6.97	14	97.5	3484
1/16/2008	262	55	212,475	2.12E-04	4.67E-04	1.32E-05	350	0.005	6.67	6	40.0	3524
1/28/2008	274	37.2	143,710	1.44E-04	3.16E-04	8.96E-06	350	0.003	4.51	12	54.2	3579
2/8/2008	285	35.6	137,529	1.38E-04	3.03E-04	8.57E-06	358	0.003	4.42	11	48.6	3627.2
2/13/2008	290	34.5	133,279	1.33E-04	2.93E-04	8.31E-06	350	0.003	4.19	5	20.9	3648.1
2/21/2008	298	28.5	110,100	1.10E-04	2.42E-04	6.86E-06	358	0.002	3.54	8	28.3	3676.4
2/27/2008	304	34.5	133,279	1.33E-04	2.93E-04	8.31E-06	350	0.003	4.19	6	25.1	3701.5
3/7/2008	313	33	127,485	1.27E-04	2.80E-04	7.95E-06	350	0.003	4.00	9	36.0	3737.6
3/13/2008	319	43	166,116	1.66E-04	3.65E-04	1.04E-05	350	0.004	5.22	6	31.3	3768.9

General Notes:

- Influent flow rate derived from differential pressure readings and anemometer readings of the primary influent pipe.
- ppm = parts per million.
- µg/m³ = micrograms per cubic meter.
- kg/m³ = kilograms per cubic meter.
- lbs/m³ = pounds per cubic meter.
- cfm = cubic feet per minute.
- Conversion factors used: 1 µg = 1 x 10⁻⁹ kg, 1 kg = 2.2 lbs, 1 m = 3.28 ft, 1 m³ = 35.3 cf.
- A ratio of 3863.2 was derived by comparing PID measurements to laboratory calibration, and was used to convert field photoionization detector (PID) readings to µg/m³. PID reading from 5/1/07 was not included in the ratio due to complications in sample collection.



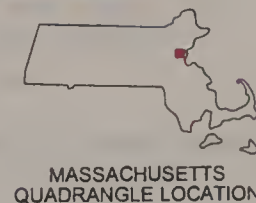
Geotechnical
Environmental and
Water Resources
Engineering





0 1000 2000 4000 6000

SCALE, FEET



This Image provided by MassGIS is taken from
U.S.G.S. Topographic 7.5 X 15 Minute Series
Boston North, MA Quadrangle, 1985.
Datum is National Geodetic Vertical Datum (NGVD 1929).
Contour Interval is 3 Meters.

IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

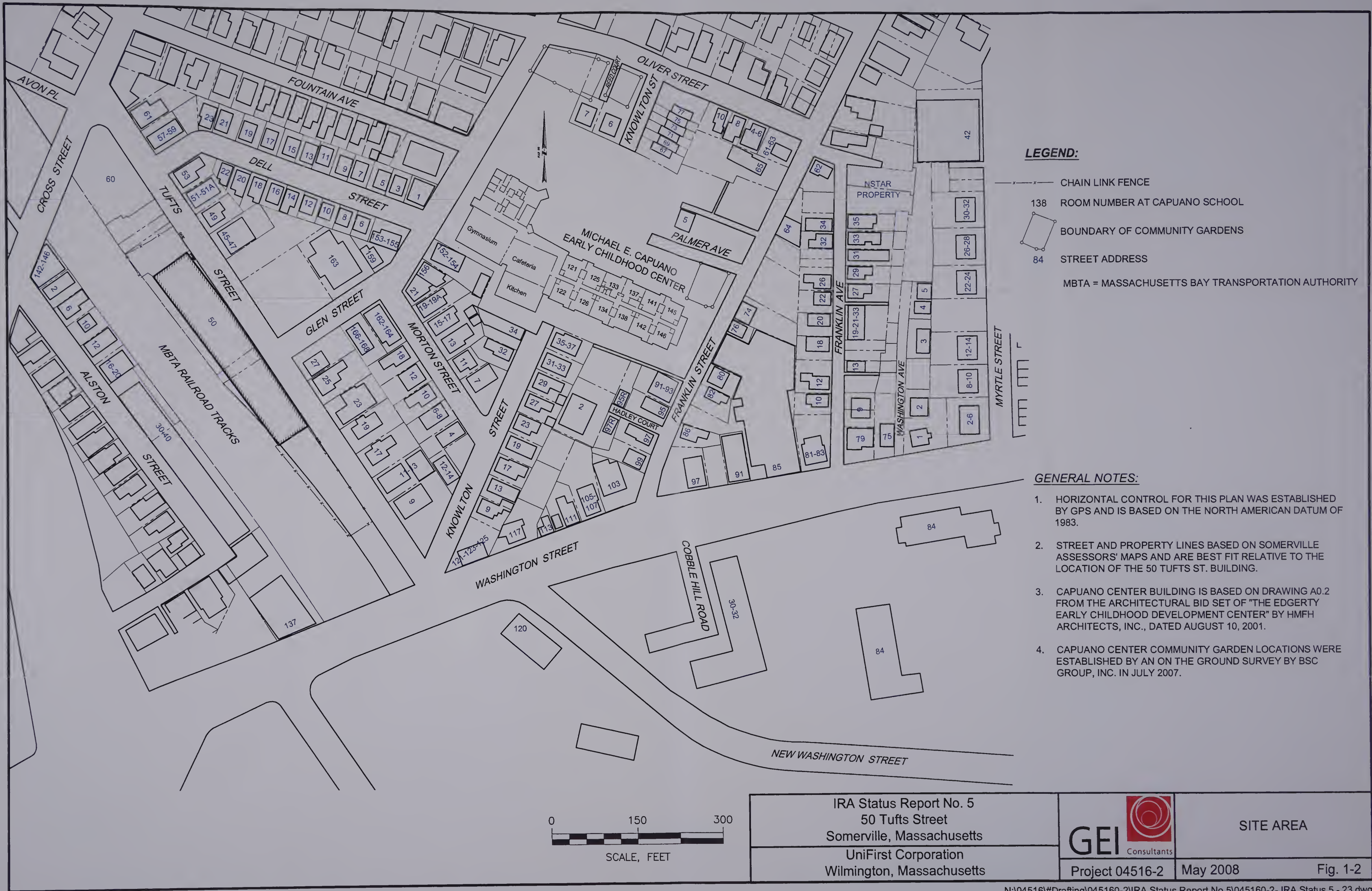


SITE LOCATION MAP

Project 04516-2

May 2008

Fig. 1-1



- GENERAL NOTES:**
- 1. BUILDINGS, STREET, AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS MAPS.
 - 2. CAPUANO CENTER BUILDING IS BASED ON DRAWING A0.2 FROM THE ARCHITECTURAL BID SET OF "THE EDGERTY EARLY CHILDHOOD DEVELOPMENT CENTER" BY HMFH ARCHITECTS, INC., DATED AUGUST 10, 2001.
 - 3. BASE PLAN MODIFIED BY GEI TO SHOW APPROXIMATE AIR SAMPLING LOCATIONS.
 - 4. THE ROOF SAMPLING LOCATION VARIES BASED ON WIND DIRECTION.

MICHAEL E. CAPUANO
EARLY CHILDHOOD CENTER

GYMNASIUM

CAFETERIA

KITCHEN

154-152

35-37

121

125

133

137

045162-150
Glen-Rm141

141

145

045162-150Glen-Roof

122

126

134

138

142

146

045162-150
Glen-Rm126

045162-150
Glen-Rm138

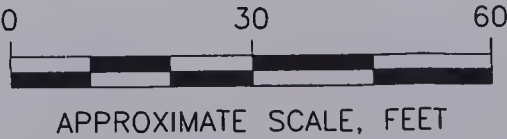
and 045162-150
Glen-Rm139 (Field Duplicate)

045162-150
Glen-Rm142

045162-150
Glen-Rm146

LEGEND:

- INDOOR AIR SAMPLE (4-HOUR SUMMA CANISTER)
- OUTDOOR AIR SAMPLE (4-HOUR SUMMA CANISTER)
- 138 ROOM NUMBER AT CAPUANO SCHOOL



IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts

UniFirst Corporation
Wilmington, Massachusetts



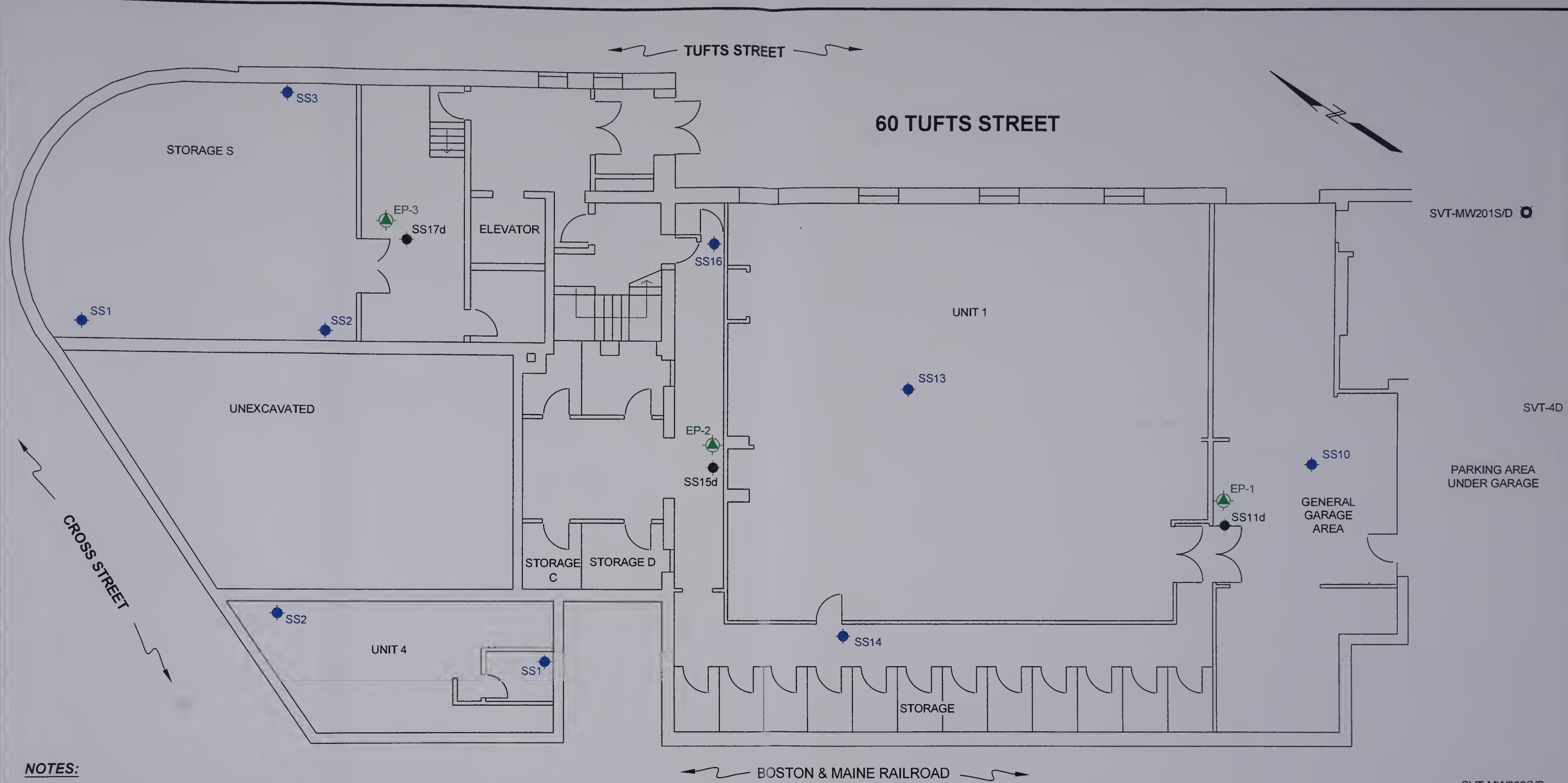
Project 04516-2

INDOOR AND OUTDOOR AIR
SAMPLING LOCATIONS
CAPUANO CENTER

May 2008

Fig. 2-1



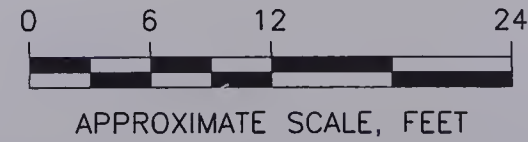



NOTES:

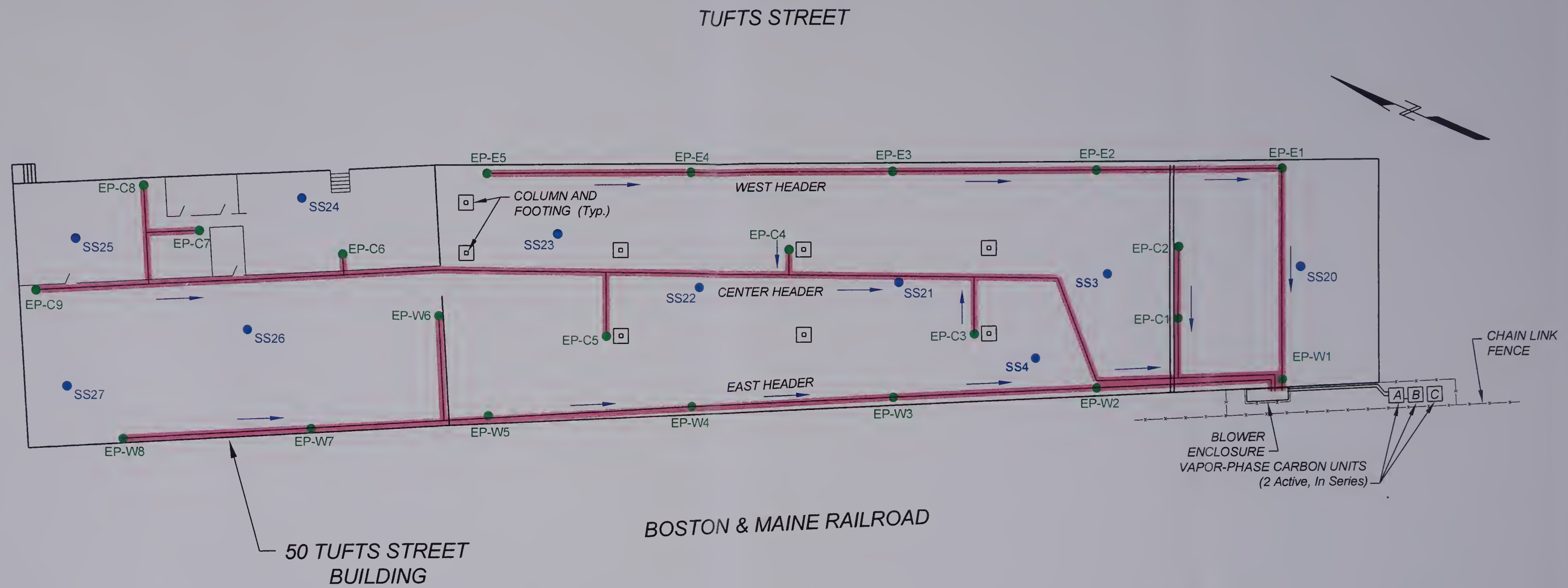
1. BASE PLAN FROM PROGRESS PRINT TITLED, "THE SANCTUARY, 60 TUFTS STREET, SOMERVILLE, MASSACHUSETTS," UNDATED BY BEDAR & BEDAR ARCHITECTS OF WESTWOOD, MA, AND ANTONELLI DESIGN STUDIO OF SOMERVILLE, MA. BASE PLAN WAS PROVIDED BY THE SOMERVILLE, MASSACHUSETTS BUILDING DEPARTMENT.
2. BASE PLAN HAS BEEN MODIFIED BY GEI BASED ON SITE OBSERVATIONS TO SHOW THE APPROXIMATE LOCATIONS OF EXISTING AND PROPOSED SUB-SLAB INVESTIGATION LOCATIONS, THE NORTHERN EXTENT OF THE BUILDING, AND GENERAL BUILDING INTERIOR FEATURES.
3. EXISTING MONITORING LOCATIONS ARE APPROXIMATE.

LEGEND:

- TEMPORARY SOIL VAPOR EXTRACTION POINT
- SOIL VAPOR MONITORING POINT
- SOIL VAPOR MONITORING POINT (SHALLOW OR DEEP)



IRA Status Report No. 5 50 Tufts Street Somerville, Massachusetts		60 TUFTS STREET SOIL VAPOR EXTRACTION TEST EXTRACTION POINT AND MONITORING POINT LOCATIONS	
UniFirst Corporation Wilmington, Massachusetts	Project 04516-2	May 2008	Fig. 3-2

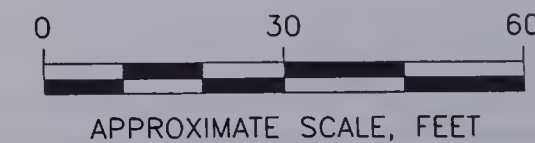


LEGEND:

- OVERHEAD 4" PVC PIPE
- AIR FLOW IN ACTIVE MODE
- SUB-SLAB EXTRACTION POINT (2" DIA. SCHEDULE 80 PVC)
- SUB-SLAB MONITORING POINT
- x—x—x— CHAIN LINK FENCE

NOTES:

1. FIGURE BASED ON PLAN TITLED "INTERSTATE UNIFORM ADDN., TUFTS STREET SOMERVILLE, MASS." BY STRUCTURAL SYSTEMS, INC. DATED DECEMBER 2, 1976.



IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

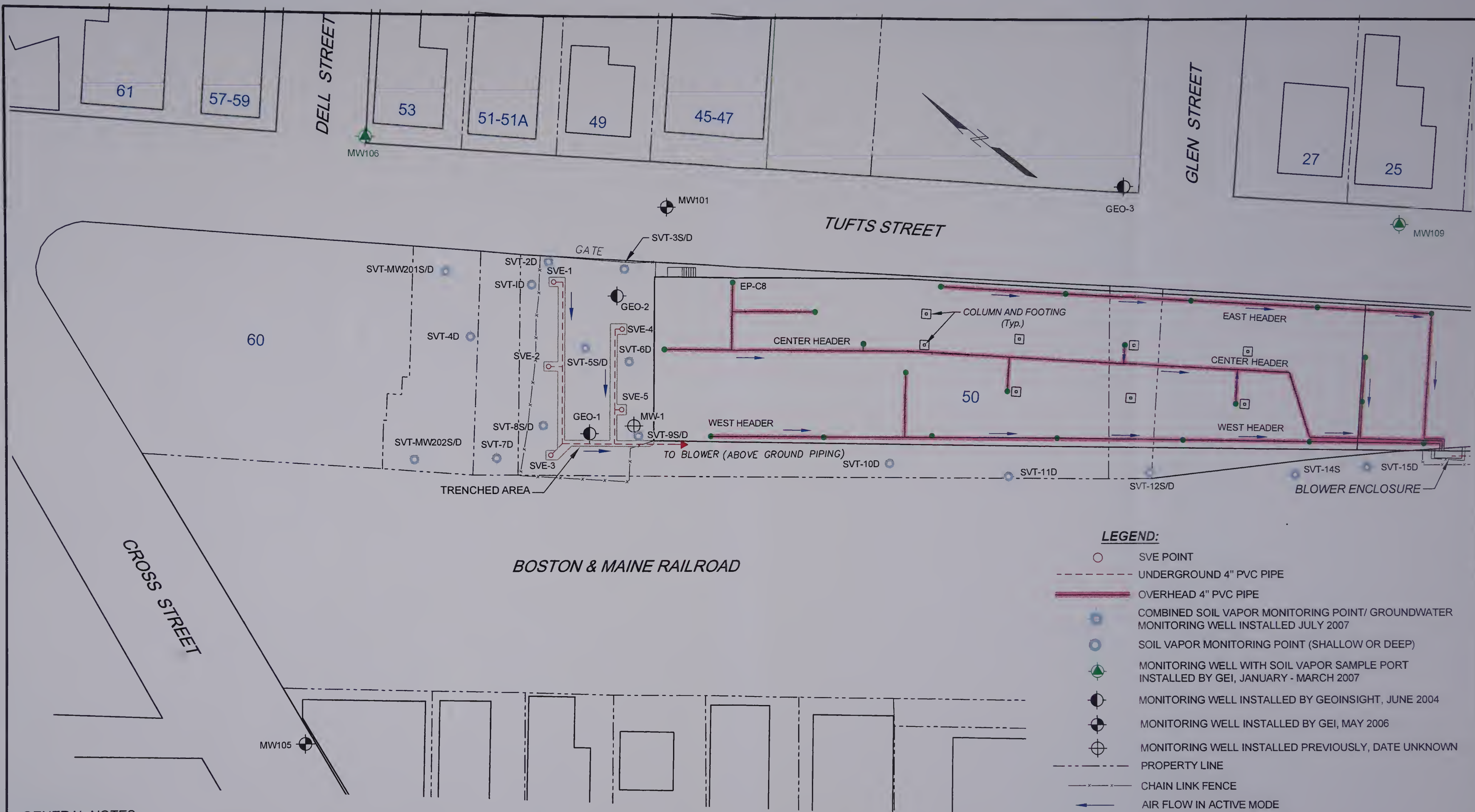


Project 04516-2

PIPING AND EQUIPMENT
LAYOUT FOR SUB-SLAB
DEPRESSURIZATION SYSTEM
50 TUFTS STREET

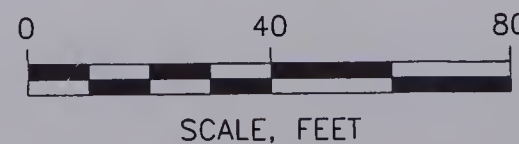
May 2008

Fig. 4-1



GENERAL NOTES:

1. HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
2. BUILDINGS, STREET, AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
3. EXISTING MONITORING WELL LOCATIONS AND ELEVATIONS WERE ESTABLISHED BY AN ON THE GROUND SURVEY BY BSC GROUP, INC. ON MAY 31, 2006 AND MARCH 16-20, 2007.



IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

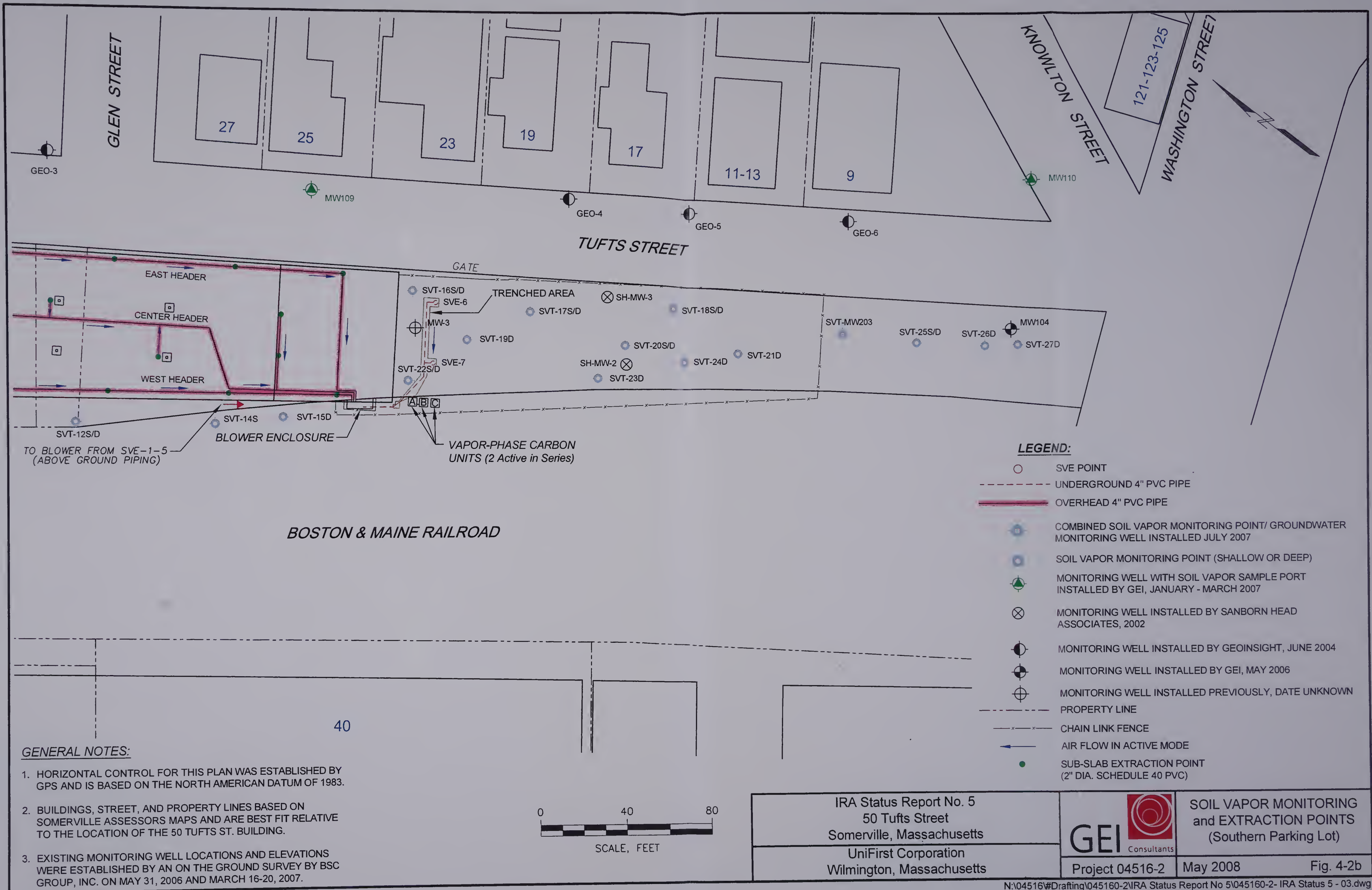


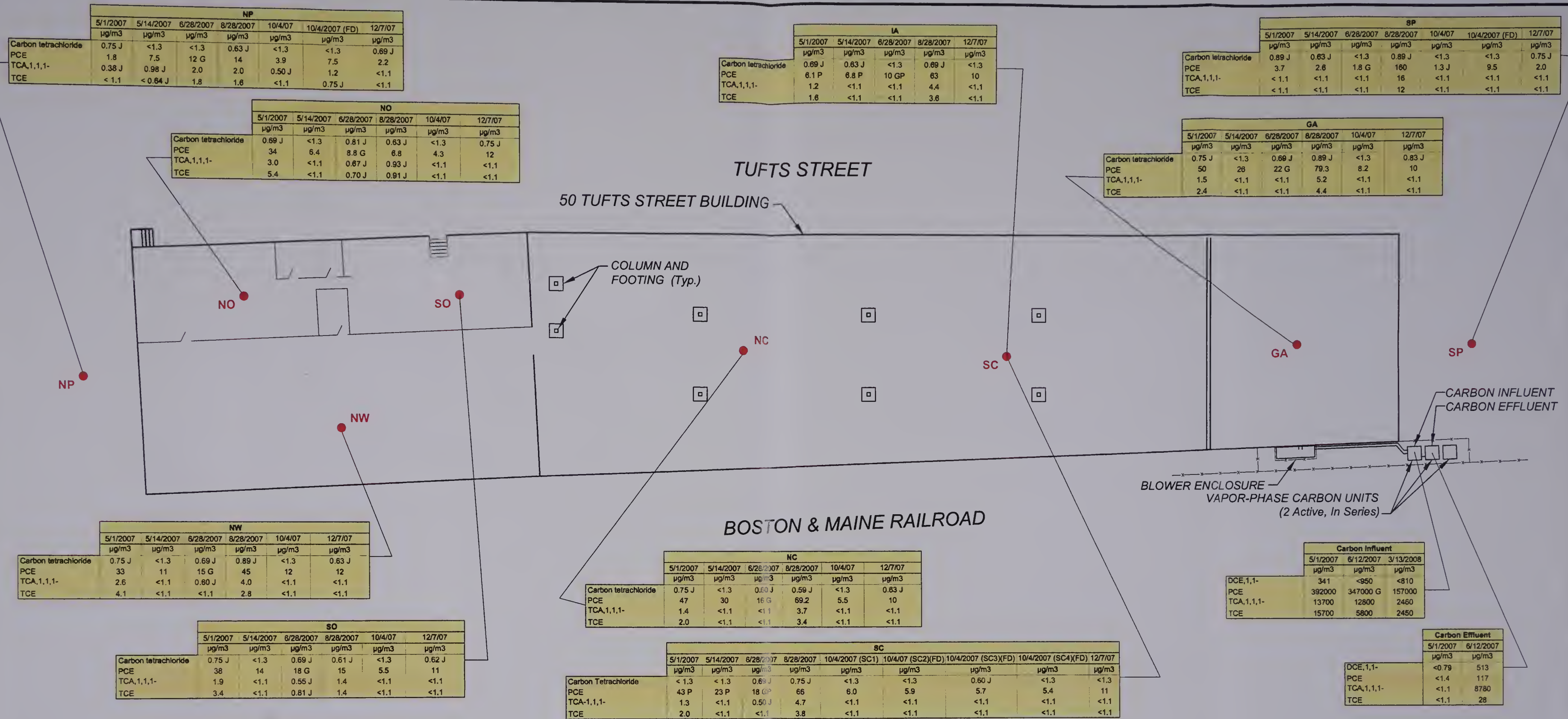
SOIL VAPOR MONITORING
and EXTRACTION POINTS
(Northern Parking Lot and
60 Tufts Street)

Project 04516-2

May 2008

Fig. 4-2a





NOTES:

- FIGURE BASED ON PLAN TITLED "INTERSTATE UNIFORM ADDN., TUFTS STREET SOMERVILLE, MASS." BY STRUCTURAL SYSTEMS, INC. DATED DECEMBER 2, 1976.
- AUGUST 28, 2007 DATA WAS COLLECTED WHILE CONTAMINATED SOIL FROM SVE INSTALLATION WAS STORED ON-SITE IN ROLL-OFF CONTAINERS.
- ONLY DETECTED CHLORINATED VOCs ARE SHOWN HERE.
- "ND" = NOT DETECTED.
- J = THE REPORTED RESULT IS BELOW THE LABORATORY REPORTING LIMITS AND IS ESTIMATED.
- G = THE REPORTED RESULT IS ESTIMATED DUE TO LABORATORY DUPLICATE PRECISION.
- P = THE REPORTED RESULT IS ESTIMATED DUE TO FIELD DUPLICSTE PRECISION OUTSIDE CONTROL LIMITS.
- "FD" = FIELD DUPLICATE

- PCE = TETRACHLOROETHENE.
- TCA 1,1,1 = TRICHLOROETHANE,1,1,1-.
- TCE = TRICHLOROETHENE.
- DCE,1,1 = DICHLOROETHENE,1,1-.



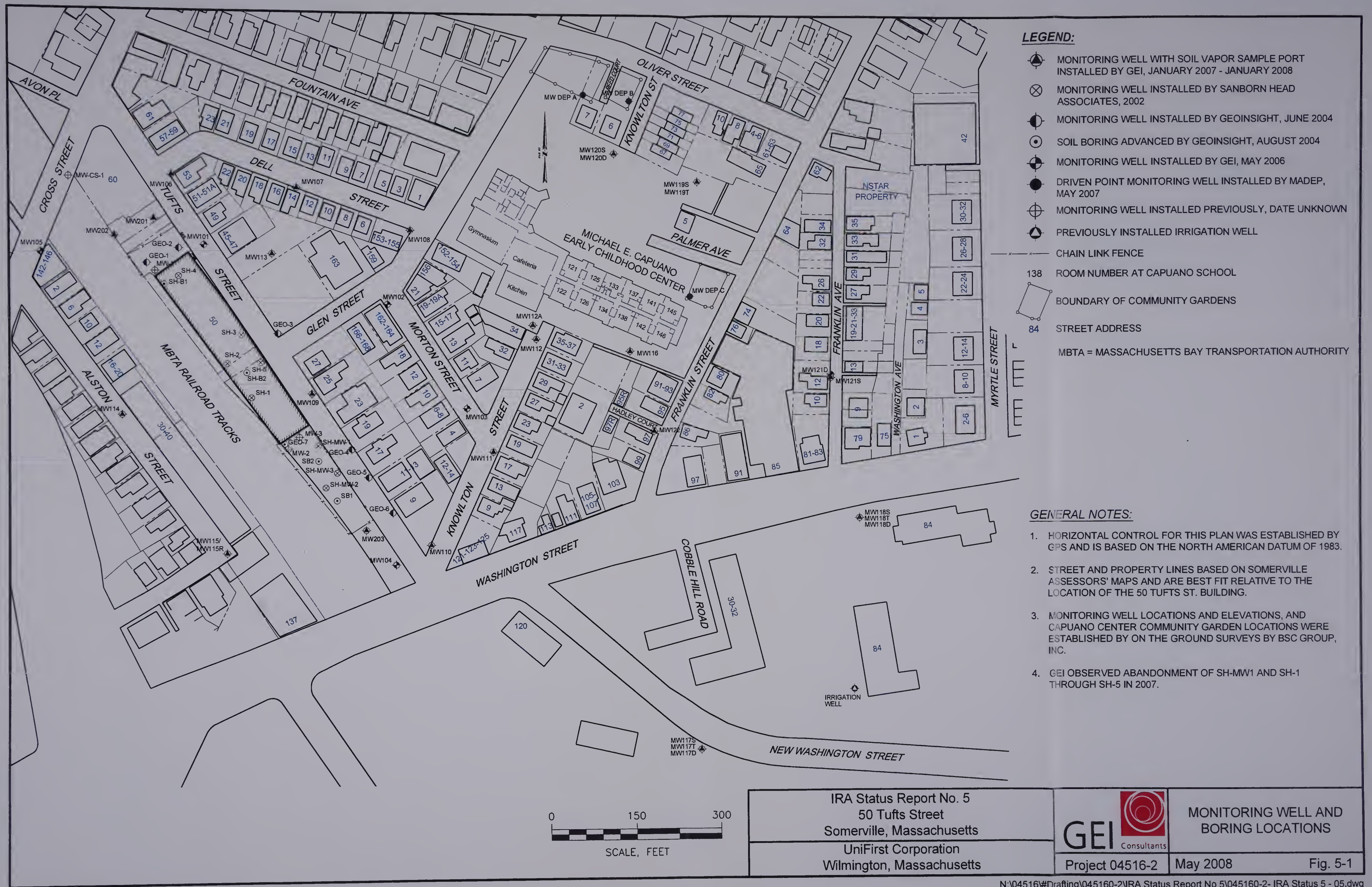
LEGEND:

- GA INDOOR AIR MONITORING LOCATION (3'-9" ABOVE SLAB)
- GA GARAGE AREA
- NC NORTH CENTRAL WAREHOUSE
- NO NORTH OFFICE
- NP NORTH PARKING LOT
- NW NORTH WAREHOUSE
- SC SOUTH CENTRAL WAREHOUSE
- SO SOUTH OFFICE
- SP SOUTH PARKING LOT
- IA INDOOR AIR DUPLICATE OF SC

IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

Project 04516-2
May 2008

50 TUFTS STREET
INDOOR AIR TESTING
RESULTS
Fig. 4-3



LEGEND:

- MONITORING WELL WITH SOIL GAS SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY SANBORN HEAD ASSOCIATES, 2002
- MONITORING WELL INSTALLED BY GEOINSIGHT, JUNE 2004
- SOIL BORING ADVANCED BY GEOINSIGHT, AUGUST 2004
- MONITORING WELL INSTALLED BY GEI, MAY 2006 - OCTOBER 2007
- DRIVEN POINT MONITORING WELL INSTALLED BY MADEP, MAY 2007
- MONITORING WELL INSTALLED PREVIOUSLY, DATE UNKNOWN
- CHAIN LINK FENCE
- 138 ROOM NUMBER AT CAPUANO SCHOOL
- 84 STREET ADDRESS

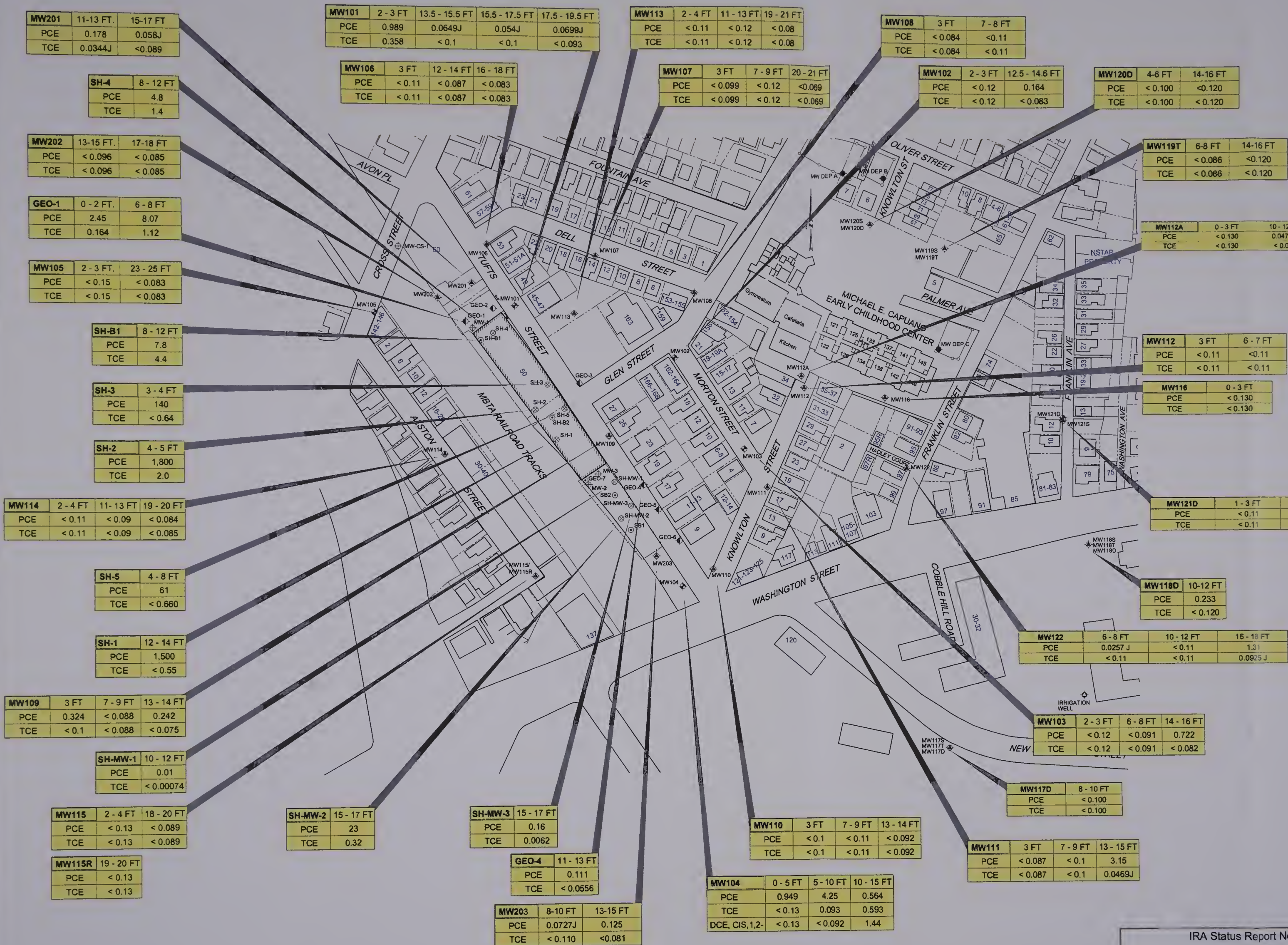
MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

CHEMICAL DATA TABLE NOTES

- CONCENTRATIONS ARE REPORTED IN MILLIGRAMS PER KILOGRAM.
- CONCENTRATIONS OF PCE AND TCE ARE SHOWN FOR EACH LOCATION.
- MCP = MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40.0000 WITH REVISIONS DATED DECEMBER 14, 2007.
- PCE = TETRACHLOROETHENE
- TCE = TRICHLOROETHENE
- DCE, CIS, 1,2 = DICHLOROETHENE, CIS, 1,2
- J = THE REPORTED RESULT IS BELOW THE LABORATORY REPORTING LIMIT AND IS ESTIMATED.
- < = THE ANALYTE WAS NOT DETECTED AT A CONCENTRATION ABOVE THE LABORATORY REPORTING LIMIT.

GENERAL NOTES

- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
- STREET AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS' MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
- CAPUANO CENTER BUILDING IS BASED ON DRAWING A0.2 FROM THE ARCHITECTURAL BID SET OF "THE EDGERTY EARLY CHILDHOOD DEVELOPMENT CENTER" BY HMFH ARCHITECTS, INC., DATED AUGUST 10, 2001.
- MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
- REFER TO THE TEXT OF THIS REPORT FOR SAMPLING DATES.



0 100 200
SCALE, FEET

IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

GEI Consultants
Project 04516-2
May 2008

BORING SOIL SAMPLE
CHEMICAL TESTING
RESULTS

Fig. 5-2

	1/18/2007		1/18/2007 (FD)		4/10/2007		7/17/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	<2.8	<1.0	<1.1	<0.40	<0.53	<0.20	<5.3	<2.0	4.2	1.8	<0.53	<0.2
DCA, 1,1-	12	3.0	3.7	0.92	2.8	0.64	8.1 G	2.0 G	11	2.8	2.9	0.71
DCE, 1,1-	204	51.5	58.7	14.8	20	5.1	153 G	38.6 G	280	70.7	39	9.8
DCE, cis-1,2-	<4.0	<1.0	<1.8	<0.40	<0.79	<0.20	<7.9	<0.20	1.7	0.44	<0.79	<0.2
PCE	47	6.9	18	2.4	14	2.1	203 G	30 G	182	23.9	28	4.1
TCA, 1,1,1-	520	95.3	170	31.2	70	20.9	408 G	74.5 G	802	147	169	31
TCE	89.9	13	22	4.1	18	3.3	127 G	23.6 G	149	27.8	33	8.1
Vinyl Chloride	<2.6	<1.0	<1.0	<0.40	<0.51	<0.20	<5.1	<2.0	1.7	0.68	<0.51	<0.2

	1/17/2007		4/10/2007		7/17/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	5.5	2.1	7.9	3.0	0.71	0.27	<0.53	<0.20	9.0	3.4
Carbon tetrachloride	0.94 J	0.15 J	<1.3	<0.20	0.94 J	0.15 J	0.58 J	0.092 J	5.7	0.91
DCA, 1,1-	97.5	24.1	123	30.3	12	2.9	2.3	0.58	45.3	11.2
DCE, 1,1-	70.8	17.8	107	27.1	5.2 G	1.3 G	1.1	0.27	23	5.8
DCE, cis-1,2-	<0.79	<0.20	0.63 J	0.16 J	<0.79	<0.20	<0.79	<0.20	0.52 J	0.13 J
PCE	0.95 J	0.14 J	4.2	0.82	16	2.2	0.95 J	0.14 J	<1.4	<0.20
TCA, 1,1,1-	4.0	0.74	4.4	0.81	4.1	0.78	1.3	0.24	1.6	0.33
TCE	5.9	1.1	4.1	0.78	17	3.2	2.8	0.53	2.4	0.44
Vinyl Chloride	4.1	1.8	5.9	2.3	<0.51	<0.20	<0.51	<0.20	3.8	1.4

	1/17/2007		4/10/2007		7/17/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Carbon tetrachloride	0.82 J	0.098 J	<1.3	<0.20	<1.3	<0.20	<1.3	<0.20	<1.3	<0.20
PCE	94.9	14	75.9	11.2	90.9	13.4	13	1.9	1.8	0.23
TCE	<1.1	<0.20	<1.1	<0.20	<1.1	<0.20	2.4	0.44	<1.1	<0.20

	8/28/2007		10/18/2007	
	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	0.58	0.22	1.0	0.38
Carbon tetrachloride	0.82 J	0.098 J	<1.3	<0.20
DCA, 1,1-	51.8	12.8	48.2	11.9
DCE, 1,1-	1.1	0.29	0.75 J	0.19 J
DCE, cis-1,2-	0.61	0.2	<0.79	<0.20
PCE	16	2.7	<1.4	<0.20
TCA, 1,1,1-	0.55 J	0.10 J	<1.1	<0.20
TCE	4.8	0.9	0.86 J	0.18 J
Vinyl Chloride	0.51	0.2	0.74	0.29

	8/28/2007		10/18/2007	
	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	1.6	0.82	0.9	0.34
DCA, 1,1-	0.85	0.21	1.4	0.35
PCE	12	1.7	1.0 J	0.15 J
TCE	1.2	0.23	0.64 J	0.12 J
Vinyl Chloride	1.2	0.47	0.48 J	0.16 J

	10/19/2007		1/8/2008	
	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	1.2	0.45	<1.1	<4.0
DCA, 1,1-	3.1	0.76	<1.8	<4.0
DCE, 1,1-	109	27.5	59.9	15.1
DCE, cis-1,2-	7.9	2.0	<1.8	<4.0
PCE	8000	1180	5160	781
TCA, 1,1,1-	1520	278	617	113
TCE	1530	285	1300	241
Vinyl Chloride	0.79	0.31	<1.0	<4.0

	10/19/2007		1/8/2008	
	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	2.3	0.88	<1.1	<4.0
DCA, 1,1-	40	9.9	23	5.8
DCE, 1,1-	326	82.3	488	118
DCE, cis-1,2-	4.4	1.1	<1.8	<4.0
DCE, trans-1,2-	0.87	0.22	<1.8	<4.0
PCE	7460	1100	5390	795
TCA, 1,1,1-	4340	796	2280	418
TCE	1.8	0.3	<2.2	<4.0
Vinyl Chloride	393	73.2	575	107

	2/19/2007		4/10/2007		1/8/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
DCA, 1,1-	8.1	2.0	0.57 J	0.14 J	1.5	0.37
DCE, 1,1-	21	5.2	<0.79	<0.20	<0.79	<0.20
PCE	8.8 J	1.3 J	3.7	0.55	3.8	0.56
TCA, 1,1,1-	11	2.0	<1.1	<0.20	1.3	0.24
TCE	16	3.0	<1.1	<0.20	<1.1	<0.20

	2/19/2007		4/10/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	<5.3	<2.0	0.77	0.29	<0.53	<0.20	3.7	1.4
Carbon tetrachloride	<3.1	<5.0	<1.3	<0.20	0.89 J	0.11 J	0.88 J	0.14 J
PCE	<1.4	<2.0	12	1.7	17	2.5	40	5.9
TCA, 1,1,1-	<1.1	<2.0	<1.1	<0.20	0.78 J	0.14 J	2.3	0.43
TCE	4.0	0.75	0.86 J	0.16 J	1.5	0.27	7.5	1.4
Vinyl Chloride	<5.1	<2.0	0.36 J	0.14 J	<0.51	<0.20	<0.51	<0.20

	1/17/2007		4/10/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
PCE	9020	1330	3950	582	18900	2780	3510	518
TCA, 1,1,1-	573	105	322	59.1	354	64.9	87.8	16.1
TCE	<110	<20	31 J	5.7 J	32	5.9	<21	<4.0

	3/20/2007		4/10/2007		7/17/2007		10/16/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Carbon tetrachloride	<1.3	<0.20	<1.3	<0.20	<1.3	<0.20	0.63 J	0.10 J	2.8	0.44
DCA, 1,1-	0.65 J	0.16 J	<0.81	<0.20	<0.81	<0.20	<0.81	<0.20	<0.81	<0.20
DCE, 1,1-	1.3	0.33	<0.79	<0.20	<0.79	<0.20	<0.79	<0.20	<0.79	<0.20
PCE	12	1.8	<1.4	<0.20	71.2	10.5	12	1.8	14	2.0
TCE	<1.1	<0.20	<1.1	<0.20	0.75 J	0.14 J	1.0 J	0.19 J	2.0	0.38

	2/19/2007	
	ug/m ³	ppbV
PCE	42	8.2
TCE	15	2.7

	1/17/2007		4/11/2007		7/17/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
DCA, 1,1-	943	233	67.2 J	16.8 J	<810	<200	<4900	<1200	<81	<20
DCE, 1,1-	619 J	156 J	<79	<20	<790	<200	<4800	<1200	<79	<20
DCE, cis-1,2-	<790	<200	46.4 J	11.7 J	<790	<200	<4800	<1200	35 J	8.8 J
PCE	269000	39700	52600	7780	178000 G	26200 G	1360000	200000	83400	12300
TCA, 1,1,1-	4650	853	715	131	2770	507	12800	2350	519	95.1
TCE	2600	484	466	86.7	1520	282	5590 J	1040 J	286	53.2

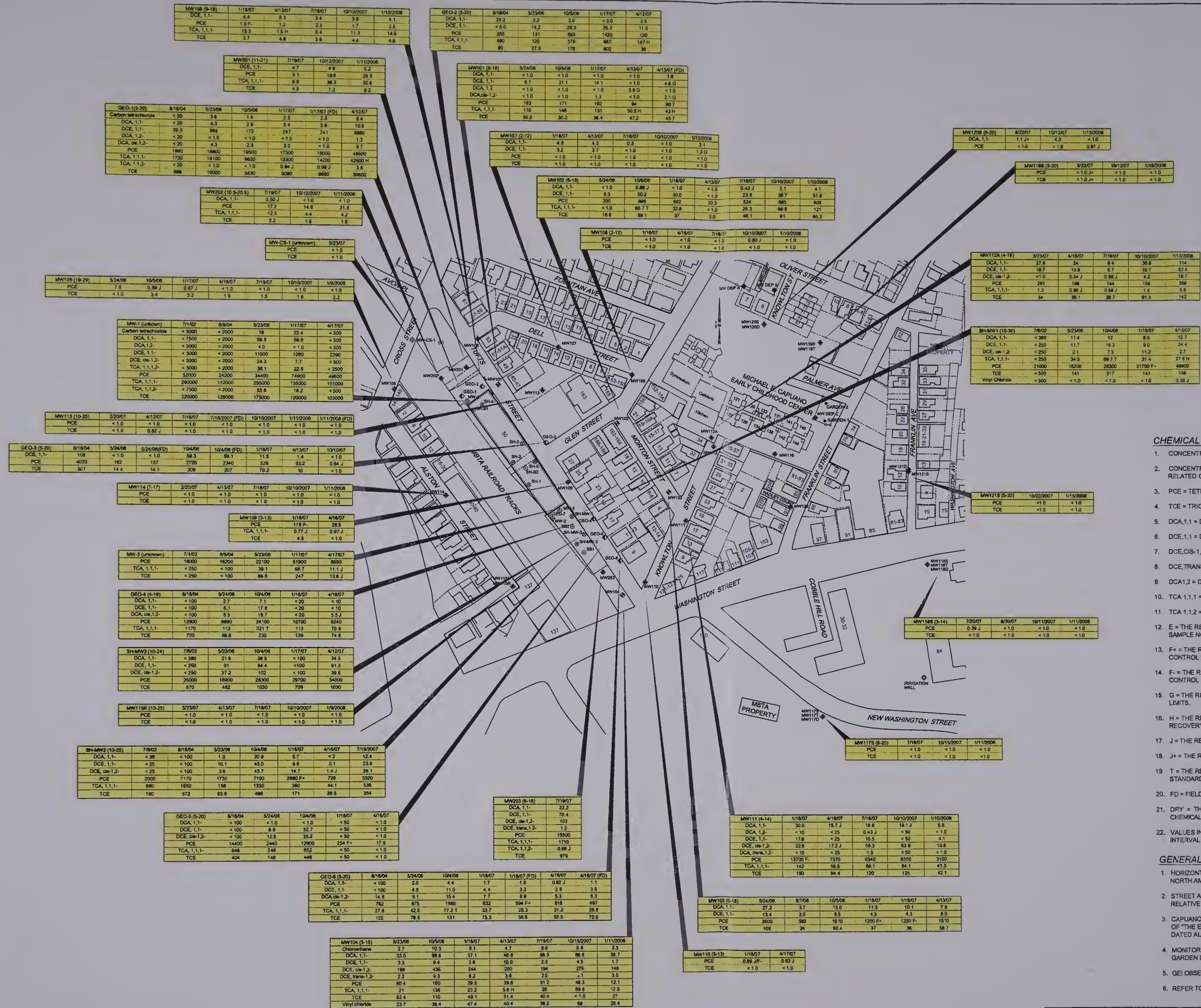
	7/17/2007		10/9/2007		1/8/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
DCA, 1,1-	4.5	1.1	<4.0	<1.0	<8.1	<2.0
PCE	12	1.7	7.5	1.1	<1.4	<2.0
TCA, 1,1,1-	1.4	0.28	<5.5	<1.0	<11	<2.0
TCE	4.2	0.78	<1.1	<0.20	<11	<2.0

	7/17/2007		8/31/2007		10/9/2007		1/8/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Carbon tetrachloride	4.6	0.77	2.2	0.35	2.1	0.34	0.75 J	0.12 J
DCA, 1,2-	<0.81	<0.20	<0.81	<0.20	0.40 J	0.098 J	<0.81	<0.20
PCE	231	34.1	155	22.9	176	26	182	26.8
TCA, 1,1,1-	8.2	1.5	6.0	1.1	7.6	1.4	5.4	0.99
TCE	2.1	0.39	<1.1	<0.20	<1.1	<0.20	13	2.4

	3/20/2007		4/11/2007		7/17/2007		10/9/2007		1/7/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
DCA, 1,1-	429	106	155	38.2	359	88.8	1150	284	2280	564
DCE, 1,1-	821	207	318	80.3	777 G	196 G	2040	524	482	857
DCE, cis-1,2-	<4.0	<1.0	<7.9	<2.0	<7.9	<2.0	40.8	10.3	360	90.9
PCE	8230	919	6240	920	6140	12300	1960	17400	2570	85.6
TCA, 1,1,1-	85.1	15.6	66.0 J	12.1 J	139	25.5	262	48	467	85.6
TCE	851	177	505	93.9	2030 G	377 G	3080	740	2930	546

	1/17/2007	
	ug/m ³	ppbV
Carbon tetrachloride	0.69 J	0.11 J
PCE	2.8	0.41

	MW118									
	3/20/2007		4/11/2007		7/17/2007		10/9/2007		1/30/2008	
	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV	ug/m ³	ppbV
Chloroethane	< 26	< 10	< 53	< 20	28	10.8	91.8	34.8	< 11	< 4.0
DCA, 1-1	378	93.5	923	228	1490	387	2550	629	482	119
DCE, 1,1-	876	221	1570	386	834	180	436	110	813	205
DCE, 1,2-	< 40	< 10	< 79	< 20	5.7 J	1.4 J	< 8.1	< 2.0	< 18	< 4.0
DCE, trans-1,2	< 40	< 10	< 79	< 20	151	38.1	84.9	21.4	< 16	< 4.0
DCA, 1,1-	254	64	2620	681	1740	438	4440	1130	702	177
DCE, trans-1,2	11100	1630	21500 G	3170 G	25500	3780	9630	1420	6600	974
TCF	2140	388	8400	1190	2620	488	2250	419	1830	341
Vinyl Chloride	89	34.8	514	201	64.7	25.3	782	298	< 10	< 4.0



- LEGEND:**
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
 - MONITORING WELL INSTALLED BY SANBORN HEAD ASSOCIATES, 2002
 - MONITORING WELL INSTALLED BY GEOSIGHT, JUNE 2004
 - SOIL BORING ADVANCED BY GEOSIGHT, AUGUST 2004
 - MONITORING WELL INSTALLED BY GEI, MAY 2006
 - DRIVEN POINT MONITORING WELL INSTALLED BY MADEP, MAY 2007
 - MONITORING WELL INSTALLED PREVIOUSLY, DATE UNKNOWN
 - PREVIOUSLY INSTALLED IRRIGATION WELL
 - CHAIN LINK FENCE
 - 138 ROOM NUMBER AT CAPUANO SCHOOL
 - BOUNDARY OF COMMUNITY GARDENS
 - 84 STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

- CHEMICAL DATA TABLE NOTES**
- CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER.
 - CONCENTRATIONS OF PCE AND TCE ARE SHOWN FOR EACH WELL. CONCENTRATIONS OF RELATED CHLORINATED COMPOUNDS ARE ALSO SHOWN WHERE DETECTED.
 - PCE = TETRACHLOROETHENE.
 - TCE = TRICHLOROETHENE.
 - DCA, 1,1 = DICHLOROETHANE, 1,1-.
 - DCE, 1,1 = DICHLOROETHENE, 1,1-.
 - DCE, CIS-1,2 = DICHLOROETHENE, CIS-1,2-.
 - DCE, TRANS-1,2 = DICHLOROETHENE, TRANS-1,2-.
 - DCA, 1,2 = DICHLOROETHANE, 1,2-.
 - TCA, 1,1,1 = TRICHLOROETHANE, 1,1,1-.
 - TCA, 1,1,2 = TRICHLOROETHANE, 1,1,2-.
 - E = THE REPORTED VALUE IS ESTIMATED; REPORTED FROM UNDILUTED SAMPLE RUN DUE TO SAMPLE NON-HOMOGENEITY.
 - F+ = THE RESULT HAS A HIGH BIAS DUE TO MATRIX SPIKE RECOVERY ABOVE UPPER CONTROL LIMITS.
 - F- = THE RESULT HAS A LOW BIAS DUE TO MATRIX SPIKE RECOVERY BELOW LOWER CONTROL LIMITS.
 - G = THE RESULT IS ESTIMATED DUE TO DUPLICATE PRECISION OUTSIDE THE CONTROL LIMITS.
 - H = THE RESULTS HAS A HIGH BIAS DUE TO CALIBRATION VENTICATION STANDARD RECOVERY ABOVE THE UPPER CONTROL LIMITS.
 - J = THE RESULT IS BELOW LABORATORY DETECTION LIMITS AND IS ESTIMATED.
 - J+ = THE REPORTED RESULT IS ESTIMATED
 - T = THE REPORTED VALUE IS ESTIMATED DUE TO CONTINUING CALIBRATION CHECK STANDARD PERCENT DIFFERENCE OUTSIDE OF CONTROL LIMITS.
 - FD = FIELD DUPLICATE.
 - DRY = THE WATER COLUMN IN THE WELL WAS INSUFFICIENT TO OBTAIN A SAMPLE FOR CHEMICAL TESTING.
 - VALUES IN PARENTHESES ADJACENT TO THE WELL NAME REPRESENT THE SCREENED INTERVAL OF THE WELL IN FEET BELOW GROUND SURFACE.

- GENERAL NOTES**
- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
 - STREET AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS' MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
 - CAPUANO CENTER BUILDING IS BASED ON DRAWING A02 FROM THE ARCHITECTURAL BID SET OF "THE EDGERTY EARLY CHILDHOOD DEVELOPMENT CENTER" BY HMF ARCHITECTS, INC., DATED AUGUST 10, 2001.
 - MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY THE GROUND SURVEYS BY BSC GROUP, INC.
 - GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.
 - REFER TO THE TEXT OF THIS REPORT FOR SAMPLING DATES.



LEGEND:

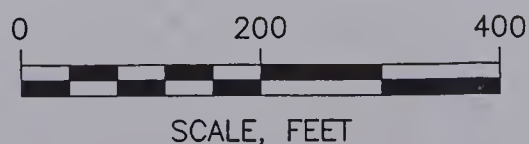
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY SANBORN HEAD ASSOCIATES, 2002
- MONITORING WELL INSTALLED BY GEOINSIGHT, JUNE 2004
- SOIL BORING ADVANCED BY GEOINSIGHT, AUGUST 2004
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- DRIVEN POINT MONITORING WELL INSTALLED BY MADEP, MAY 2007
- MONITORING WELL INSTALLED PREVIOUSLY, DATE UNKNOWN
- PREVIOUSLY INSTALLED IRRIGATION WELL
- CHAIN LINK FENCE
- 138 ROOM NUMBER AT CAPUANO SCHOOL
- BOUNDARY OF COMMUNITY GARDENS
- 84 STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

CHEMICAL DATA TABLE NOTES

- CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER.
- CONCENTRATIONS OF PCE AND TCE ARE SHOWN FOR EACH WELL. CONCENTRATIONS OF RELATED CHLORINATED COMPOUNDS ARE ALSO SHOWN WHERE DETECTED.
- PCE = TETRACHLOROETHENE.
- TCE = TRICHLOROETHENE.
- DCA,1,1 = DICHLOROETHANE,1,1-.
- DCE,1,1 = DICHLOROETHENE,1,1-.
- DCE,CIS-1,2 = DICHLOROETHENE, CIS-1,2-.
- TCA 1,1,1 = TRICHLOROETHANE,1,1,1-.
- < = THE ANALYTE WAS NOT DETECTED AT A CONCENTRATION ABOVE THE REPORTING LIMIT.
- J = THE RESULT IS BELOW LABORATORY REPORTING LIMIT AND IS ESTIMATED.
- J+ = THE RESULT IS ESTIMATED BASED ON DATA VALIDATION
- VALUES IN PARENTHESES ADJACENT TO THE WELL NAME REPRESENT THE SCREENED INTERVAL OF THE WELL IN FEET BELOW GROUND SURFACE.

GENERAL NOTES

- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
- STREET AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS' MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
- CAPUANO CENTER BUILDING IS BASED ON DRAWING A0.2 FROM THE ARCHITECTURAL BID SET OF "THE EDGERTY EARLY CHILDHOOD DEVELOPMENT CENTER" BY HMFH ARCHITECTS, INC., DATED AUGUST 10, 2001.
- MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
- GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.



IRA Status Report No. 5
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts



TILL WELLS
GROUNDWATER CHEMICAL
TESTING RESULTS

Project 04516-2

May 2008

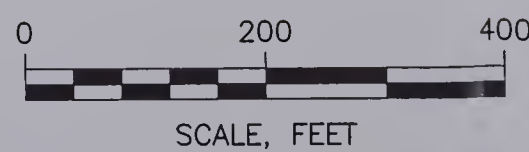
Fig. 5-5



- LEGEND:**
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
 - MONITORING WELL INSTALLED BY SANBORN HEAD ASSOCIATES, 2002
 - MONITORING WELL INSTALLED BY GEOINSIGHT, JUNE 2004
 - SOIL BORING ADVANCED BY GEOINSIGHT, AUGUST 2004
 - MONITORING WELL INSTALLED BY GEI, MAY 2006
 - DRIVEN POINT MONITORING WELL INSTALLED BY MADEP, MAY 2007
 - MONITORING WELL INSTALLED PREVIOUSLY, DATE UNKNOWN
 - PREVIOUSLY INSTALLED IRRIGATION WELL
 - CHAIN LINK FENCE
 - 138 ROOM NUMBER AT CAPUANO SCHOOL
 - BOUNDARY OF COMMUNITY GARDENS
 - 84 STREET ADDRESS
 - MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

- CHEMICAL DATA TABLE NOTES**
- CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER.
 - CONCENTRATIONS OF PCE AND TCE ARE SHOWN FOR EACH WELL. CONCENTRATIONS OF RELATED CHLORINATED COMPOUNDS ARE ALSO SHOWN WHERE DETECTED.
 - PCE = TETRACHLOROETHENE.
 - TCE = TRICHLOROETHENE.
 - DCA,1,1 = DICHLOROETHANE,1,1-.
 - DCE,1,1 = DICHLOROETHENE,1,1-.
 - DCE,CIS-1,2 = DICHLOROETHENE, CIS-1,2-.
 - TCA 1,1,1 = TRICHLOROETHANE,1,1,1-.
 - DCE, TRANS, 1,2 = DICHLOROETHENE, TRANS, 1,2-.
 - < = THE ANALYTE WAS NOT DETECTED AT A CONCENTRATION ABOVE THE REPORTING LIMIT.
 - J = THE RESULT IS BELOW LABORATORY REPORTING LIMIT AND IS ESTIMATED.
 - J+ = THE RESULT IS ESTIMATEDBASED ON DATA VALIDATION.
 - VALUES IN PARENTHESES ADJACENT TO THE WELL NAME REPRESENT THE SCREENED INTERVAL OF THE WELL IN FEET BELOW GROUND SURFACE.

- GENERAL NOTES**
- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
 - STREET AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS' MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
 - CAPUANO CENTER BUILDING IS BASED ON DRAWING A0.2 FROM THE ARCHITECTURAL BID SET OF "THE EDGERTY EARLY CHILDHOOD DEVELOPMENT CENTER" BY HMF ARCHITECTS, INC., DATED AUGUST 10, 2001.
 - MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
 - GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.



IRA Status Report No. 5 50 Tufts Street Somerville, Massachusetts UniFirst Corporation Wilmington, Massachusetts		BEDROCK WELLS GROUNDWATER CHEMICAL TESTING RESULTS	
		Project 04516-2	May 2008
		Fig. 5-6	



Geotechnical
Environmental
Water Resources
Ecological



Appendix A

DEP Transmittal Forms BWSC-105, BWSC-105A, and BWSC-105B

From: <eDEPConfirmation@massmail.state.ma.us>
To: <igladstone@geiconsultants.com>
Date: 5/12/2008 12:12 PM
Subject: eDEP Submittal Confirmation

CC: <chathaway@geiconsultants.com>

Thank you for using eDEP Online Filing from the Massachusetts Department of Environmental Protection. Your transaction is complete and has been submitted to MassDEP.

This email is your receipt for the eDEP Online Filing transaction described below. Please review it and keep a copy for your records.

Please do NOT reply to this message, this email address will not receive messages. For assistance with eDEP Online Filing, please email the DEP Help Desk at DEP.HELP@state.ma.us or call 617-556-1100.

MassDEP is interested in how we can serve you better. To help us make improvements to eDEP, please take a minute to complete our eDEP Online Filing Survey at <http://www.mass.gov/dep/service/compliance/edepsurv.htm>.

To contact MassDEP Programs, please see <http://mass.gov/dep/about/contacts.htm>.

DEP Transaction ID: 174399

Date and Time Submitted: 5/12/2008 12:05:05 PM

Form Name: BWSC 105 IRA Transmittal Form

RTN: 3-23246

Location: 50 TUFTS ST & PROP ACROSS THE ST

Address: 50 TUFTS ST

SOMERVILLE

021454129

Person Making Submittal

UNIFIRST CORP

JOHN R

BADEY

68 JONSPIN RD

WILMINGTON

MA

018870000

LSP

LSP #: 9719

LSP Name: ILEEN S

GLADSTONE

Person Making Certification

UNIFIRST CORP

JOHN R. BADEY

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report B()

BWSC Remedial Monitoring Report B()

BWSC Remedial Monitoring Report B()

Ancillary Document Uploaded/Mailed :

BWSC-105 Q.B06 - IRA Status Report - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

EMAIL ID OF THE USER: igladstone@geiconsultants.com

EMAIL ID OF THE OTHER USERS: chathaway@geiconsultants.com

Submittal Summary & Receipt

Your submission is complete. Thank you for using DEP's online reporting system. You can select "My Homepage" to review your status.

DEP Transaction ID: 174399

Date and Time Submitted: 5/12/2008 12:05:05 PM

Other Email :

Form Name: BWSC 105 IRA Transmittal Form

RTN: 3-23246

Location: 50 TUFTS ST & PROP ACROSS THE ST

Address: 50 TUFTS ST, SOMERVILLE, 021454129

Person Making Submittal

UNIFIRST CORP

JOHN R BADEY

68 JONSPIN RD

WILMINGTON, MA 018870000

LSP

LSP #: 9719

LSP Name: ILEEN S GLADSTONE

Person Making Certification

UNIFIRST CORP

JOHN R. BADEY

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report A()

BWSC Remedial Monitoring Report B()

BWSC Remedial Monitoring Report B()

BWSC Remedial Monitoring Report B()

Ancillary Document Uploaded/Mailed

BWSC-105 Q.B06 - IRA Status Report - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

print receipt

cancel



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM**

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

-

23246

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: **50 TUFTS ST & PROP ACROSS THE ST**

2. Street Address: **50 TUFTS ST**

3. City/Town: **SOMERVILLE**

4. ZIP Code: **021454129**

5. UTM Coordinates: a. UTM N: **4694322** b. UTM E: **328049**

☒ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☐ a. Tier IA ☐ b. Tier IB ☒ c. Tier IC ☐ d. Tier II

☐ 7. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):

☐ a. CERCLA ☐ b. HSWA Corrective Action ☐ c. Solid Waste Management
☐ d. RCRA State Program (21C Facilities)

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): **1/9/2006**

(mm/dd/yyyy)

☐ 2. Submit an **Initial IRA Plan**.

☐ 3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.

☐ 4. Submit an **Imminent Hazard Evaluation**. (check one)

☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.

☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.

☐ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.

☐ d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

☐ 5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.

☒ 6. Submit an **IRA Status Report**.

☒ 7. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)

a. Type of Report: (check one) ☐ i. Initial Report ☒ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal: (check all that apply)

☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.

☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.

☒ iii. A Remedial Monitoring Report(s) submitted concurrent with a IRA Status Report.

c. Number of Remedial Systems and/or Monitoring Programs: **4**

A separate BWSC105A, IRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

-

23246

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 8. Submit an IRA Completion Statement.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN) . When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. Provide Release Tracking Number of Tier Classified Site (Primary RTN):

-

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 9. Submit a Revised IRA Completion Statement.

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- ☒ a. Air ☒ b. Basement ☒ c. Critical Exposure Pathway ☒ d. Groundwater ☒ e. Residence
☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☒ i. School ☐ j. Sediments
☐ k. Soil ☐ l. Storm Drain ☐ m. Surface Water ☐ n. Unknown ☐ o. Wetland ☐ p. Zone 2
☐ q. Others Specify: _____

2. Identify Oils and Hazardous Materials Released: (check all that apply)

- ☐ a. Oils ☒ b. Chlorinated Solvents ☐ c. Heavy Metals
☐ d. Others Specify: _____

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- | | |
|--|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input checked="" type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Bioremediation | <input type="checkbox"/> 12. Air Sparging |



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

-

23246

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☒ 13. Excavation of Contaminated Soils

☒ a. Re-use, Recycling or Treatment

☐ i. On Site Estimated volume in cubic yards

☒ ii. Off Site Estimated volume in cubic yards 80

ii.a. Receiving Facility: STABLEX; QUEBEC, CANADA Town: BOSTON State: MA

ii.b. Receiving Facility: AMERICAN RECLEMATION Town: CHARLTON State: MA

iii. Describe: _____

☐ b. Store

☐ i. On Site Estimated volume in cubic yards

☐ ii. Off Site Estimated volume in cubic yards

ii.a. Receiving Facility: _____ Town: _____ State: _____

ii.b. Receiving Facility: _____ Town: _____ State: _____

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards

Receiving Facility: _____ Town: _____ State: _____

☐ ii. Disposal Estimated volume in cubic yards

Receiving Facility: _____ Town: _____ State: _____

☒ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: 11 - 55-GALLON DRUMS OF WATER 6 - 55-GALLON DRUMS OF SOLIDS

b. Receiving Facility: GENERAL CHEMICAL Town: FRAMINGHAM State: MA

c. Receiving Facility: _____ Town: _____ State: _____

☒ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: SPENT GRANULAR ACTIVATED CARBON 21,900 LBS

b. Receiving Facility: RINECO Town: BENTON State: AR

c. Receiving Facility: _____ Town: _____ State: _____

☒ 16. Other Response Actions:

Describe: _____

EXPOSURE PATHWAY ELIMINATION SYSTEMS (EPEMS)/TEMP AIR PURIFIERS AND/OR SSDS

☐ 17. Use of Innovative Technologies:

Describe: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 23246

E. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation comply(ies) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that an **Immediate Response Action Status Report** and/or a **Remedial Monitoring Report** is(are) being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9719

2. First Name: ILEEN S

3. Last Name: GLADSTONE

4. Telephone: 7817214012

5. Ext.:

6. FAX:

7. Signature: Ileen S Gladstone

8. Date: 05/12/2008

(mm/dd/yyyy)

9. LSP Stamp:





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 23246

F. PERSON UNDERTAKING IRA:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions
2. Name of Organization: **UNIFIRST CORP**
3. Contact First Name: **JOHN R** 4. Last Name: **BADEY**
5. Street: **68 JONSPIN RD** 6. Title:
7. City/Town: **WILMINGTON** 8. State: **MA** 9. ZIP Code: **018870000**
10. Telephone: **8003477888** 11. Ext.: 12. FAX:

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

- ☒ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter
- ☒ e. Other RP or PRP Specify: **OTHER PRPS**
- ☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- ☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- ☐ 4. Any Other Person Undertaking IRA Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.
- ☐ a. A Release Abatement Measure (RAM) Plan (BWSC106) ☐ b. Phase IV Remedy Implementation Plan (BWSC108)
- ☐ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- ☒ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.
- ☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM**

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

-

23246

I. CERTIFICATION OF PERSON UNDERTAKING IRA:

1. I, **JOHN R. BADEY**, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: **John R. Badey**
Signature

3. Title:

4. For: **UNIFIRST CORP**
(Name of person or entity recorded in Section F)

5. Date: **05/12/2008**
(mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

**YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER
BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT
SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU
SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.**

Date Stamp (DEP USE ONLY:)

Received by DEP on

5/12/2008 12:05:05 PM



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 1 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- | | | |
|---|---|--|
| <input type="checkbox"/> i. NAPL Recovery | <input type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input type="checkbox"/> iii. Vapor-phase Carbon Adsorption |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption |
| <input type="checkbox"/> vii. Air Stripping | <input type="checkbox"/> viii. Sparging/Biosparging | <input type="checkbox"/> ix. Cat/Thermal Oxidation |
- ☒ x. Other Describe: **SUB-SLAB DEPRESSURIZATION SYSTEM**
- ☐ b. Application of Remedial Additives: (check all that apply)
- | | | |
|---|---|--|
| <input type="checkbox"/> i. To the Subsurface | <input type="checkbox"/> ii. To Groundwater (Injection) | <input type="checkbox"/> iii. To the Surface |
|---|---|--|
- ☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)
- | | | |
|---|--|---|
| <input type="checkbox"/> i. Reactive Wall | <input type="checkbox"/> ii. Natural Attenuation | <input type="checkbox"/> iii. Other Describe: _____ |
|---|--|---|

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: _____

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☒ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)
- ☐ f. Other Describe: _____

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal:

From: 11/1/2007
(mm/dd/yyyy)

To: 3/31/2008
(mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- | |
|--|
| <input type="checkbox"/> i. Days 1, 3, 6, and then weekly thereafter, for the first month. |
| <input type="checkbox"/> ii. Other Describe: _____ |
- ☒ b. Post-system Startup (after first month) or Monitoring Program:
- | |
|---|
| <input type="checkbox"/> i. Monthly |
| <input type="checkbox"/> ii. Quarterly |
| <input checked="" type="checkbox"/> iii. Other Describe: TOTAL VOCs -- WEEKLY, INDOOR AIR -- MONTHLY |

- ☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion Effective Date of Permit: _____
(mm/dd/yyyy)
- ☒ 2. MCP Performance Standard MCP Citations(s): **WSC-94-150**
- ☐ 3. DEP Approval Letter Date of Letter: _____
(mm/dd/yyyy)
- ☐ 4. Other Describe: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3 - 23246

Remedial System or Monitoring Program: 1 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name:

b. Grade:

c. License No.:

d. License Exp. Date:

(mm/dd/yyyy)

☐ 2. Not Required

☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional:

152

b. GW Recovered (gals):

c. NAPL Recovered (gals):

d. GW Discharged (gals):

e. Avg. Soil Gas Recovery Rate (scfm):

112

f. Avg. Sparging Rate (scfm):

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 1 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)
(check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: b. Total Number of Days of Unscheduled Shutdowns:

c. Reason(s) for Unscheduled Shutdowns:

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: b. Total Number of Days of Scheduled Shutdowns:

c. Reason(s) for Scheduled Shutdowns:

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe:

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105B

Release Tracking Number

IRA REMEDIAL MONITORING REPORT
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 (SUBPART D)

Remedial System or Monitoring Program:

1 of: 4

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	<input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Groundwater Concentration	(check one)	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
SSDS	11/2/2007	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	11/9/2007	TOTAL VOCS	.062		0.041		<input type="checkbox"/>	28.00	PPM	Yes
SSDS	11/14/2007	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	11/23/2007	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	11/30/2007	TOTAL VOCS	.006				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	12/7/2007	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	12/14/2007	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	12/21/2007	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	12/28/2007	TOTAL VOCS	0		.106		<input type="checkbox"/>	28.00	PPM	Yes
SSDS	1/4/2008	TOTAL VOCS	0.058		.108		<input type="checkbox"/>	28.00	PPM	Yes
SSDS	1/18/2008	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	1/21/2008	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	2/1/2008	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	2/18/2008	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	3/7/2008	TOTAL VOCS	0				<input checked="" type="checkbox"/>	28.00	PPM	Yes
SSDS	3/14/2008	TOTAL VOCS	0		.018		<input type="checkbox"/>	28.00	PPM	Yes
							<input type="checkbox"/>			
							<input type="checkbox"/>		MG/KG	
							<input type="checkbox"/>			
							<input type="checkbox"/>			

☐ Check here if an additional BWSC105B, Effluent/Discharge Concentrations Form, is needed.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 2 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- | | | |
|---|---|--|
| <input type="checkbox"/> i. NAPL Recovery | <input type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input type="checkbox"/> iii. Vapor-phase Carbon Adsorption |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption |
| <input type="checkbox"/> vii. Air Stripping | <input type="checkbox"/> viii. Sparging/Biosparging | <input type="checkbox"/> ix. Cat/Thermal Oxidation |

☒ x. Other Describe: SUB-SLAB DEPRESSURIZATION SYSTEM

☐ b. Application of Remedial Additives: (check all that apply)

- ☐ i. To the Subsurface ☐ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

- ☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe:

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other:

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☒ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)

☐ f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal:

From:

11/1/2007

(mm/dd/yyyy)

To:

3/31/2008

(mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.

☐ ii. Other Describe:

☒ b. Post-system Startup (after first month) or Monitoring Program:

- ☐ i. Monthly
- ☐ ii. Quarterly

☒ iii. Other Describe: YEARLY

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

☐ 1. NPDES: (check one)

☐ a. Remediation General Permit

☐ b. Individual Permit

☐ c. Emergency Exclusion

Effective Date of Permit:

(mm/dd/yyyy)

☒ 2. MCP Performance Standard MCP Citations(s): WSC-94-150

☐ 3. DEP Approval Letter Date of Letter:

(mm/dd/yyyy)

☐ 4. Other Describe:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105 A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 2 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

- ☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.
- a. Name: b. Grade:
- c. License No.: d. License Exp. Date:
(mm/dd/yyyy)
- ☐ 2. Not Required
- ☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

- ☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.
- a. Days System was Fully Functional: 152 b. GW Recovered (gals):
- c. NAPL Recovered (gals): d. GW Discharged (gals):
- e. Avg. Soil Gas Recovery Rate (scfm): 95 f. Avg. Sparging Rate (scfm):
- ☐ 2. Remedial Additives: (check all that apply)
- ☐ a. No Remedial Additives applied during the Reporting Period.
- ☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 2 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)
(check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____
(mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☐ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 3 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- | | | |
|---|---|--|
| <input type="checkbox"/> i. NAPL Recovery | <input type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input checked="" type="checkbox"/> iii. Vapor-phase Carbon Adsorption |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption |
| <input type="checkbox"/> vii. Air Stripping | <input type="checkbox"/> viii. Sparging/Biosparging | <input type="checkbox"/> ix. Cat/Thermal Oxidation |
- ☒ x. Other Describe: **SUB-SLAB DEPRESSURIZATION SYSTEM**
- ☐ b. Application of Remedial Additives: (check all that apply)
- | | | |
|---|---|--|
| <input type="checkbox"/> i. To the Subsurface | <input type="checkbox"/> ii. To Groundwater (Injection) | <input type="checkbox"/> iii. To the Surface |
|---|---|--|
- ☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)
- | | | |
|---|--|---|
| <input type="checkbox"/> i. Reactive Wall | <input type="checkbox"/> ii. Natural Attenuation | <input type="checkbox"/> iii. Other Describe: _____ |
|---|--|---|

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: _____

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☒ i. Off-gas Controls ☐ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)
- ☐ f. Other Describe: _____

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: **11/1/2007** To: **3/31/2008**
(mm/dd/yyyy) (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- | |
|--|
| <input type="checkbox"/> i. Days 1, 3, 6, and then weekly thereafter, for the first month. |
| <input type="checkbox"/> ii. Other Describe: _____ |
- ☒ b. Post-system Startup (after first month) or Monitoring Program:
- | |
|---|
| <input type="checkbox"/> i. Monthly |
| <input type="checkbox"/> ii. Quarterly |
| <input checked="" type="checkbox"/> iii. Other Describe: TOTAL VOCS WKLY TIL 3/13/08 THEN MTHLY & IA QRTLY |

☒ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion
Effective Date of Permit: _____ (mm/dd/yyyy)
- ☒ 2. MCP Performance Standard MCP Citations(s): **WSC-94-150**
- ☐ 3. DEP Approval Letter Date of Letter: _____ (mm/dd/yyyy)
- ☐ 4. Other Describe: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105 A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

- 23246

Remedial System or Monitoring Program: 3 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name:

b. Grade:

c. License No.:

d. License Exp. Date:

(mm/dd/yyyy)

☐ 2. Not Required

☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional:

152

b. GW Recovered (gals):

c. NAPL Recovered (gals):

d. GW Discharged (gals):

e. Avg. Soil Gas Recovery Rate (scfm):

356

f. Avg. Sparging Rate (scfm):

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 3 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)
(check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____
(mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes: _____

☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

IRA REMEDIAL MONITORING REPORT
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 (SUBPART D)

Remedial System or Monitoring Program: 3 of: 4

BWSC105B

Release Tracking Number

3 - 23246

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one) <input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Groundwater Concentration	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
SSDS	11/9/2007	TOTAL VOCS	101.4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.07	PPM	Yes
SSDS	11/13/2007	TOTAL VOCS	101.4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.07	PPM	Yes
SSDS	11/19/2007	TOTAL VOCS	91.7		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.585	PPM	Yes
SSDS	11/26/2007	TOTAL VOCS	73.8		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.69	PPM	Yes
SSDS	12/3/2007	TOTAL VOCS	97.3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.865	PPM	Yes
SSDS	12/7/2007	TOTAL VOCS	98.5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.925	PPM	Yes
SSDS	12/12/2007	TOTAL VOCS	77.9		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.895	PPM	Yes
SSDS	12/27/2007	TOTAL VOCS	64.8		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.24	PPM	Yes
SSDS	1/10/2008	TOTAL VOCS	55.5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.775	PPM	Yes
SSDS	1/16/2008	TOTAL VOCS	55		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.75	PPM	Yes
SSDS	1/28/2008	TOTAL VOCS	37.2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.86	PPM	Yes
SSDS	2/8/2008	TOTAL VOCS	35.6		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.78	PPM	Yes
SSDS	2/13/2008	TOTAL VOCS	34.5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.725	PPM	Yes
SSDS	2/21/2008	TOTAL VOCS	28.5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.425	PPM	Yes
SSDS	2/27/2008	TOTAL VOCS	34.5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.725	PPM	Yes
SSDS	3/7/2008	TOTAL VOCS	33		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.65	PPM	Yes
SSDS	3/13/2007	TOTAL VOCS	43		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.15	PPM	Yes
					<input type="checkbox"/>	<input type="checkbox"/>		MG/KG	
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			

☐ Check here if an additional BWSC105B, Effluent/Discharge Concentrations Form, is needed.



IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3 - 23246

Remedial System or Monitoring Program: 4 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- | | | |
|---|--|--|
| <input type="checkbox"/> i. NAPL Recovery | <input checked="" type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input checked="" type="checkbox"/> iii. Vapor-phase Carbon Adsorption |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption |
| <input type="checkbox"/> vii. Air Stripping | <input type="checkbox"/> viii. Sparging/Biosparging | <input type="checkbox"/> ix. Cat/Thermal Oxidation |
| <input type="checkbox"/> x. Other Describe: _____ | | |
- ☐ b. Application of Remedial Additives: (check all that apply)
- | | | |
|---|---|--|
| <input type="checkbox"/> i. To the Subsurface | <input type="checkbox"/> ii. To Groundwater (Injection) | <input type="checkbox"/> iii. To the Surface |
|---|---|--|
- ☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)
- | | | |
|---|--|---|
| <input type="checkbox"/> i. Reactive Wall | <input type="checkbox"/> ii. Natural Attenuation | <input type="checkbox"/> iii. Other Describe: _____ |
|---|--|---|

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: _____

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☒ i. Off-gas Controls ☐ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)
- ☐ f. Other Describe: _____

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 11/1/2007 To: 3/31/2008
(mm/dd/yyyy) (mm/dd/yyyy)

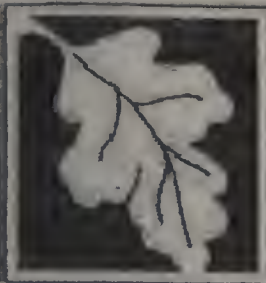
2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- | |
|--|
| <input type="checkbox"/> i. Days 1, 3, 6, and then weekly thereafter, for the first month. |
| <input type="checkbox"/> ii. Other Describe: _____ |
- ☒ b. Post-system Startup (after first month) or Monitoring Program:
- | |
|---|
| <input type="checkbox"/> i. Monthly |
| <input type="checkbox"/> ii. Quarterly |
| <input checked="" type="checkbox"/> iii. Other Describe: TOTAL VOCS WKLY TIL 3/13/08 THEN MTHLY & IA QRTLTY |

☒ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion Effective Date of Permit: _____
(mm/dd/yyyy)
- ☒ 2. MCP Performance Standard MCP Citations(s): WSC-94-150
- ☐ 3. DEP Approval Letter Date of Letter: _____
(mm/dd/yyyy)
- ☐ 4. Other Describe: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105 A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 4 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name:

b. Grade:

c. License No.:

d. License Exp. Date:

(mm/dd/yyyy)

☐ 2. Not Required

☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional:

152

b. GW Recovered (gals):

c. NAPL Recovered (gals):

d. GW Discharged (gals):

e. Avg. Soil Gas Recovery Rate (scfm):

356

f. Avg. Sparging Rate (scfm):

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units



IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number

3 - 23246

Remedial System or Monitoring Program: 4 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)
(check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: b. Total Number of Days of Unscheduled Shutdowns:

c. Reason(s) for Unscheduled Shutdowns:

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: b. Total Number of Days of Scheduled Shutdowns:

c. Reason(s) for Scheduled Shutdowns:

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe:

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105B

Release Tracking Number

3 - 23246

IRA REMEDIAL MONITORING REPORT
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 (SUBPART D)

Remedial System or Monitoring Program:

4 of: 4

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one) <input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Groundwater Concentration	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
SVE	11/9/2007	TOTAL VOCS	101.4			<input checked="" type="checkbox"/>	5.07	PPM	Yes
SVE	11/13/2007	TOTAL VOCS	101.4			<input checked="" type="checkbox"/>	5.07	PPM	Yes
SVE	11/19/2007	TOTAL VOCS	91.7			<input checked="" type="checkbox"/>	4.585	PPM	Yes
SVE	11/26/2007	TOTAL VOCS	73.8			<input checked="" type="checkbox"/>	3.69	PPM	Yes
SVE	12/3/2007	TOTAL VOCS	97.3			<input checked="" type="checkbox"/>	4.865	PPM	Yes
SVE	12/7/2007	TOTAL VOCS	98.5			<input checked="" type="checkbox"/>	4.925	PPM	Yes
SVE	12/12/2007	TOTAL VOCS	77.9			<input checked="" type="checkbox"/>	3.895	PPM	Yes
SVE	12/27/2007	TOTAL VOCS	64.8			<input checked="" type="checkbox"/>	3.24	PPM	Yes
SVE	1/10/2008	TOTAL VOCS	55.5			<input checked="" type="checkbox"/>	2.775	PPM	Yes
SVE	1/16/2008	TOTAL VOCS	55			<input checked="" type="checkbox"/>	2.75	PPM	Yes
SVE	1/28/2008	TOTAL VOCS	37.2			<input checked="" type="checkbox"/>	1.86	PPM	Yes
SVE	2/8/2008	TOTAL VOCS	35.6			<input checked="" type="checkbox"/>	1.78	PPM	Yes
SVE	2/13/2008	TOTAL VOCS	34.5			<input checked="" type="checkbox"/>	1.725	PPM	Yes
SVE	2/21/2008	TOTAL VOCS	28.5			<input checked="" type="checkbox"/>	1.425	PPM	Yes
SVE	2/27/2008	TOTAL VOCS	34.5			<input checked="" type="checkbox"/>	1.725	PPM	Yes
SVE	3/7/2008	TOTAL VOCS	33.			<input checked="" type="checkbox"/>	1.65	PPM	Yes
SVE	3/13/2008	TOTAL VOCS	43			<input checked="" type="checkbox"/>	2.15	PPM	Yes
						<input type="checkbox"/>		MG/KG	
						<input type="checkbox"/>			
						<input type="checkbox"/>			

☐ Check here if an additional BWSC105B, Effluent/Discharge Concentrations Form, is needed.



Geotechnical
Environmental and
Water Resources
Engineering



Appendix B through Appendix Z

Appendices found on enclosed CD

**Immediate Response Action Status Report No. 5
and Remedial Monitoring Report No. 8
Appendices "A" through "Z"**

Prepared by:



50 Tufts Street, Somerville, MA

Project No. 04516-2

May 12, 2008

